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CALIFORNIA HISTORY

SPRING 1998



National Gold Rush Symposium

J.S. Holliday

Malcolm J. Rohrbough

Patricia Nelson Limerick

Richard White

Kevin Starr

BURLINGAME

AUG 27 1998

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A Letter to Readers—



In one of the central exhibits of "Gold Fever! The Lure and Legacy of the California Gold Rush," these life-cast figures, including Yankee and California Indian men and women, Hawaiian, Mexican, and Chinese miners, express the diversity of people and techniques of gold-recovery in the California mines, ca. 1850. Image courtesy Oakland Museum of California.

For those fortunate 300 or more people wedged into the auditorium at the Oakland Museum of California on January 24 and 25, 1998, this issue of *California History*, the quarterly journal of the California Historical Society, will be a keepsake to value and read time and time again. For those who were not there, this issue will also be a keepsake and a chance to enjoy for the first time, and literally hear, the words, thoughts, humor, questions, and insights of five distinguished historians.

The occasion of this extraordinary gathering was the symposium organized by the Oakland Museum and held in conjunction with the opening of the three exhibitions curated by the Museum on the discovery of gold and the Gold Rush. The speakers were J. S. Holliday, Malcolm J. Rohrbough, Patricia Nelson Limerick, Richard White, and Kevin Starr.

My colleague, Richard Orsi, editor of the Society's quarterly since 1988 and a noted scholar, teacher, and author of the history of California and the West, was in the audience. He knew immediately that what he was listening to was special and inspiring. Approaching officials of the Museum, he inquired if the speeches were going to be published. The response was that there were no plans to do so, and Dr. Orsi offered to try to arrange for the Historical Society to publish them in conjunction with the Museum in what would be an issue of *California History* . . . and here it is.

The thrill one gets from reading these works is that they convey more than just what happened . . . there is the real sense of exhilaration and exhaustion, freedom and obligation, dreams of riches and the reality of failure, the mud and the cold, the "sweat-

ing and scratching," to use one of Dr. Holliday's allusions in another talk I heard some time ago. There is also evidence of what happened to others, left behind at home or trampled on here in California, and probing questions about our penchant for exaggeration today, as well as our willingness "to live courageously in the face of a past and present that is at once tragic and liberating," as Dr. Starr has noted so eloquently.

California's Sesquicentennial is a time for reflection and reexamination of the state's astonishing past and its influence on settling the West (or the "shaking" of it, as Dr. Limerick has described it). At the same time it affords the opportunity for institutions such as the Oakland Museum to marshal its talent with the generosity of its many communities to present great exhibitions and call together good people to both talk and listen. For the California Historical Society and its generous communities, our contribution is the four-volume series of special editions of *California History*, which reexamine California before the Gold Rush, the discovery of gold, the Gold Rush, and politics, government, and statehood, the first volume having been published early this year as an issue of the quarterly and as a book by the University of California Press.

The ultimate triumph, however, is the unplanned and quite wonderful collaboration of the Museum and the Society in joining their considerable resources to produce this special "Gold-Rush Symposium" issue, which collects, preserves, and interprets so much vital and significant history of California.

MICHAEL McCONE
Executive Director,
California Historical Society

FRONT COVER: E. Hall Martin, *Mountain Jack and a Wandering Miner*, ca. 1850, (also called *The Forty-Niners*) (detail), oil on canvas, 39 1/2 x 72 in. Oakland Museum of California, Gift of Concours d'Antiques, Art Guild of the Oakland Museum Association. Photographed by M. Lee Fatheree. BACK COVER: Charles Christian Nahl (1818-1878), *Indian Family on San Francisco Bay*, n.d., oil on canvas. Oakland Museum of California, Kahn Collection.

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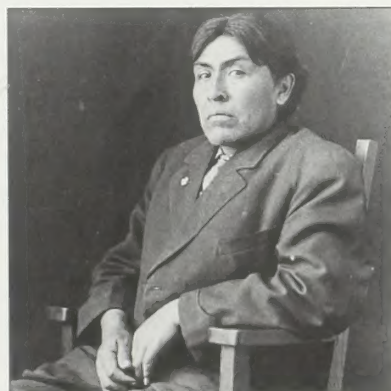
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The National Gold Rush Symposium of the Oakland Museum of California

by Phil Mumma

It has now been five years since we decided to undertake the Oakland Museum of California's commemoration of the 150th anniversary of the discovery of gold at Sutter's Mill. It often takes that long to produce museum exhibitions and programs.

As staff, we agreed early that while the discovery of gold and the rush to California were formative events in the state's history, the public's understanding of the era and its importance was sketchy and based as much on myth, lore, and romanticized notions as on an understanding of history. Those issues alone are important enough to warrant a major exhibition.

But this subject was even more special. There were other reasons to contemplate what we realized could be a very important endeavor. No institution had ever undertaken a major gold-rush exhibition before, certainly nothing on the scale that we were beginning to discuss. In recent years a variety of historians and others had produced wonderful books and papers on the period, providing additional possibilities as to what might be included in our hoped-for presentations. And this undertaking had the potential to be the type of project that the Oakland Museum of California traditionally has done best—focusing on a subject through more than one academic discipline or lens, in this case history, the natural sciences, and art.

Now, after five years of intensive effort by staff, trustees, and others, the Museum has achieved even more than we bargained for. We mounted three exhibitions rather than one. Each opened at the Museum in January 1998. "GOLD FEVER! The Lure and Legacy of the California Gold Rush" is a multidisciplinary exhibition featuring more than 400 historical artifacts, original works of art, photographs, documents, and natural specimens. "Art of the Gold Rush" was organized in cooperation with the Crocker Art Museum of Sacramento and brings together for the first time 72 of the finest paintings, watercolors, and drawings of the era. "Silver and Gold: Cased Images of the California Gold Rush" fea-

tures 150 daguerreotypes and ambrotypes, images of the people and landscapes of the Gold Rush.

All three shows will travel after leaving Oakland. A fourth exhibit, a much reduced version of "Gold Fever!," will also travel to smaller museums in California, when it is completed in upcoming weeks.

Other important elements of the overall project included the National Gold Rush Symposium, held at the Museum this past January; a nine-session lecture series, also held at the Museum throughout the spring; and extensive curriculum materials developed under Museum staff's leadership for the state's fourth, fifth, eighth, tenth, and eleventh grade students, perhaps the most lasting legacy of the overall \$3 million humanities project.

This issue of *California History* features the principal addresses given at the National Gold Rush Symposium, which began on January 24, commemorating the 150th anniversary of James Marshall's discovery. The museum brought together 20 leading authorities and authors for an important two-day event. The papers by featured speakers J. S. Holliday, Malcolm Rohrbough, Patricia Nelson Limerick, Richard White, and Kevin Starr can be read in their entirety on subsequent pages of this special issue. Many of the illustrations in this issue, including the cover paintings, appear in the original in one of the Museum's three gold rush exhibitions.

What were not able to be reprinted here, however, were the marvelous panel discussions that took place. Symposium panels and their speakers were:

- "The Gold Seekers: Who They Were, Why They Came and What They Found" featured Ling-chi Wang, associate professor, Department of Ethnic Studies, University of California, Berkeley; Frank La Pena, professor of art and ethnic studies and director of Native American studies, California State University, Sacramento; Rodger Birt, professor of humanities and American studies, California State University, San Francisco; and Lisbeth Haas, associate professor of history, University of California, Santa Cruz.

- "Mining the Gold—Mining the Miners" included



One of the featured displays at the Oakland Museum of California's exhibition, "Gold Fever! The Lure and Legacy of the California Gold Rush," is a collection of artifacts unearthed in San Francisco by Oakland archaeologist Allen Pastron. Artifacts such as these containers for foods and spirits provide insight into the everyday lives of Forty-niners and their successors and testify to the international nature of the Gold Rush. The small container, second from the left, is a mustard jar from France; the metal plate at the right is a label from a container of oysters from New York. Collection of Allen Pastron, photographed by Catherine Buchanan. Print courtesy Oakland Museum of California.

Ron Limbaugh, professor of history, University of the Pacific; T. H. Watkins, former editor of *Wilderness* magazine and current professor of western American studies, Montana State University; James Henley, head of the Sacramento Archives and Museum; and Allen Pastron, archaeologist and president of ArcheoTech in Oakland.

- "Statehood, Urban Expansion, Vigilance, Racial and Economic Conflict" featured John Burns, former State Archivist, now with the State Department of Education; James J. Rawls, author and instructor of history, Diablo Valley College; Susan Johnson, assistant professor of history, University of Colorado; and J. S. Holliday, historian, author, and advisor to the "GOLD FEVER!" project.

- "The Legacy of the Gold Rush—A Golden State?"

brought together Gary Brechin, architectural and environmental historian and author; David Gutiérrez, professor of history, University of California, San Diego; Michael Duchemin, curator of History, Autry Museum of Western Heritage; and Gerald Haslam, author and retired professor of English, California State University, Sonoma.

Overall, the presentations were superb.

We are grateful to Executive Director Michael McCone and Editor Richard Orsi for suggesting a collaboration between the California Historical Society and the Oakland Museum of California, which allows us to bring a bit of the symposium to you.

PHIL MUMMA
Associate Director,
Oakland Museum of California



Forty-niners commonly waited in lines for days outside post offices in San Francisco and Sacramento City for monthly mail delivery, their only link to loved ones left behind. By the summer of 1850, crafty entrepreneurs began hawking stationery printed with colorful scenes of California life, which sold by the tens of thousands. This young California man posed with a pen and paper for daguerreotype artist William Shew. *Courtesy Bancroft Library.*

Reverberations of the California Gold Rush

by J. S. Holliday

At the outset I want to take a moment to salute the Oakland Museum of California.* This institution had the foresight and the courage—I would even say the daring—in 1994 to commit its financial and intellectual strength to creating a massive \$2.3-million dollar exhibition depicting the California Gold Rush, its origins, and its long-term impact. Through three years of fundraising and searching for the needed artifacts and working with allies to create the sights and sounds that now enliven this magnificent exhibition, the museum's executive director, Dennis Power, and the project director, Tom Frye, and each member of their staff hurried every day, driven by their determination to be ready for the date, today—January 24, 1998, the one-hundred-fiftieth anniversary of James Marshall's discovery of that tiny yet powerful nugget, which I have called the "speck of the future." I believe the Oakland Museum's "Gold Fever!" exhibition will prove to be more enriching and enlightening, with more residual value, than any other contribution to California's Sesquicentennial celebration.

Now, I want to think with you about several themes—I hope some compelling ideas—that run through this wonderful exhibition.

In October 1850, a lonely woman in Youngstown, New York, on the banks of the Niagara River, wrote to her husband, who had joined the rush to California in the spring of 1849. She had written to him many times, her letters simply addressed "William Swain, Sacramento City, California." And each of her

letters had reached William, giving him reassurance that his family was well, but causing him anguish because he was not yet ready to heed her plea that he return home. Like thousands of wives throughout the thirty states and around the world, Sabrina Swain worried not only about her husband's physical, but also his moral, well-being. Everyone knew California to be a sinful place, a Golgotha of drinking, swearing, gambling, violation of the Sabbath, and worse. When would William return to his family? As the months passed, Sabrina wrote ever more fervently to plead that he start for home, with or without the promised "pocketful of rocks." For some wives the question became, "Will he ever return?"

That October morning Sabrina looked at the letter she had written the night before. She had left a small space at the bottom, enough for a sentence. On impulse she took up her pen and scrawled this line: "Oh William, if you were here this morning I would hug and kiss you till you would blush."

What an erotic sentence—maybe not for the 1990s, but certainly so in the 1850s. And William came home, early in 1851.

Though few were motivated by a message as compelling as Sabrina's, each year some thirty thousand men (very few women: 1,033 in 1854) left California, headed for the States and other home countries. Few walked east on the overland trails, and very few sailed around the Horn. Far better to take passage on one of the Pacific Mail Steamship Company's side-wheelers that sailed from San Francisco twice each month for Panama City, where by 1855 a railroad carried those thousands of passengers through the jungle to the Atlantic and to another ship bound for east coast and European ports. Mail to and from

*This text is an edited, revised version of the remarks by J. S. Holliday that opened the National Symposium on the California Gold Rush, at the Oakland Museum of California, January 24-25, 1998.

California was shipped by that same route. Often as many as eighty thousand letters inundated the San Francisco post office at one time, many of them begging husbands, fathers, sons, brothers, and uncles to forsake California and not their families. Panama-bound steamers returned as many letters with labored explanations why their authors could not come home—not while they still believed they could “strike it rich.”

In 1851 a miner named Lucius Fairchild (a future governor of Wisconsin) wrote to his family, reflecting the torment felt by so many thousands in the Sierra mining camps. “Everybody in the States who have friends here are always writing for them to *come home*. Now they may all long heartily to go, but it is hard to leave when they have not made much money or are engaged in business which by leaving they will lose . . . or they may have some mining opportunity in view by which they are confident of making a fortune. This is my case and the case of thousands of others. As soon as a man fails in one operation he is bolting into another, in doing which he thinks to hasten his return home. . . . There is not such another country on earth which presents to every man an opportunity to gain an easy livelihood, or a competency if he is more ambitious.”

There it is, perfectly stated—California’s attraction for those in Placerville and San Francisco and for those back in the States who had resisted the initial rush in 1849. Letters like Fairchild’s spread the news in 1851 and later: “It’s not too late.” Another influence that deterred the return home and lured new immigrants was California’s freedom and liberality, what we call today “life style.” Not only a place to make a fortune, the new state was widely described as free from the rules and constraints of Albany, New York, and Zebulon, Georgia. Who cared in Sacramento or Oroville if you swore and gambled on Sunday? What did it matter if you were in debt? Credit was easy, if expensive. Dress any way you wished, forget to bathe, move from camp to camp, always ready for the next opportunity: investing in a quartz

mine in Grass Valley, building a hotel in Mariposa, buying a bowling alley in Auburn, owning a bordello in Sonora. It was a masculine, transient world, safe from hometown eyes; everyone in a hurry, eager to grasp the main chance. That robust society became well known through the eyes of those who found the new way of life so tempting that they delayed returning home. One such letter explained: “The independence and liberality here and the excitement attending the rapid march of this country make one feel insignificant and sad at the prospect of returning to the old beaten path at home.”

With smiling sarcasm, Lucius Fairchild sent a sample of the California spirit back to Wisconsin. “Gambling, drinking, and houses of ill fame are the chief amusements of this country, therefore, you see that we have nothing but work, reading, and writing to amuse us as we are all nice young men and do not frequent such places.”

As in the 1960s, images and ideas from California during the 1850s and later challenged hometown traditions and values in the eastern states. Letters, newspaper stories, and books described the wonders and contrasts of life in the rambunctious camps and booming cities: canvas walls of gambling palaces decorated with palatial mirrors and lewd paintings; streets hip-deep in mud; rough justice of vigilantism, lynchings, and ear-clippings; riots, fires, and floods; crowded populations of thousands of men, among whom could be found only a few women, many of them prostitutes. And children? So few that when seen on the street or in a store they were hailed as reminders and forecasts of “home.”

Where else in the world could be found thriving cities through which circulated millions of dollars in gold and international trade, but without a single cathedral or museum or marbled mansion, without a uniformed police force or a public fire department? Canvas and boards, bricks and iron, graced San Francisco and Sacramento, Marysville and Sonora, with only here and there a structure prominent for its architectural ambition and intended longevity.



"There is a bar or gambling house at every step and . . . every attraction is offered and every trick practiced to get the miner's dust," noted Forty-niner Elisha Douglas Perkins in his journal. "We are thousands of miles from home and comfort ourselves by thinking that a knowledge of our indulgence in vice will never reach them." One such indulgent scene was depicted in this detail from the 1849 lithograph "Pioneer's Ten Commandments." *Courtesy Oakland Museum of California. Photographed by Catherine Buchanan.*

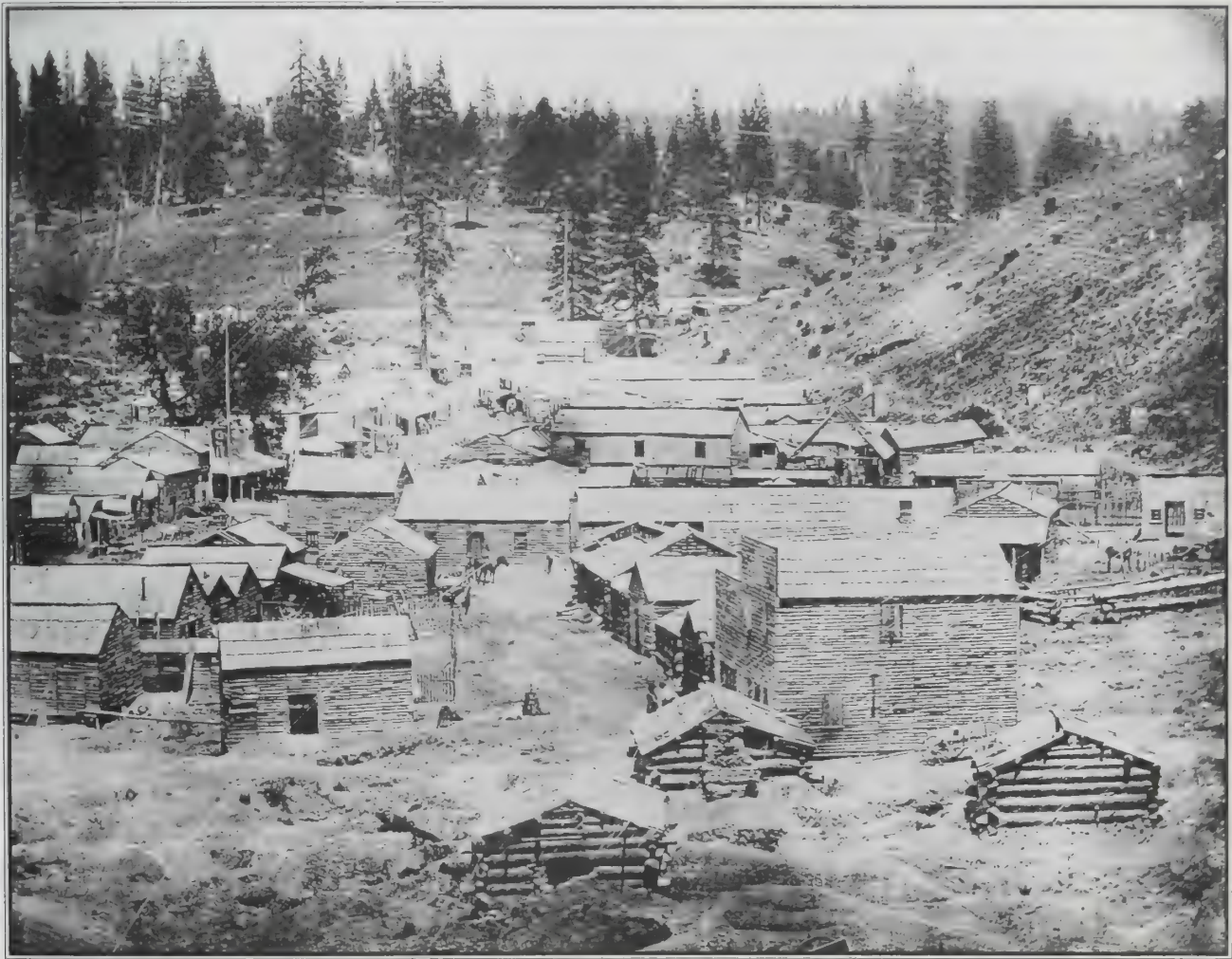
With shocking frequency, conflagrations swept away city blocks, even entire towns and mining camps, cleansing by destroying, a process that in fact reinvigorated the economy by removing yesterday's thrown-together buildings to be replaced by tomorrow's rebuilding with less flammable materials and by eliminating vast quantities of stored and excess

imports, thereby boosting prices and assuring profits from new shipments. Losses today would be swiftly regained—and more—tomorrow. Such was the "I'll-get-mine" expectation of the 1850s.

Gold paid for everything. New methods of mining, new inventions, more daring investments. The increased production astonished the world: \$75



San Francisco was among the first cities to use photography to keep a record of local criminals. This leather-bound "mug book" belonged to M. J. Burke, the city's second chief of police. Courtesy Oakland Museum of California, Greg and Petra Martin Collection.



Gold rush-era towns were hastily constructed, easily destroyed, and repeatedly rebuilt. This 1849 daguerreotype of Placerville shows how the surrounding hills were being stripped of trees to build the burgeoning town. *Courtesy Sacramento Archives and Museum Collection Center.*

million in 1851, \$81 million in 1852, and by the end of the decade, the total came to \$594 million—over \$10 billion in today's dollars. California, in truth, had become the Land of Gold, a country of prodigious projects and prodigal plundering.

Neither local, state, nor federal governments contributed to the astounding economic progress, not

even by providing much traditional frontier law and order to cope with waves of crime and violence. In only the most extreme of many examples of disorder, miners and other recently arrived immigrants, with the complicity of government and military officials, assaulted California's Indian peoples, spread disease, and seized their lands and resources, driving

down their population from more than 100,000 in 1848 to a mere 30,000 by 1870, in the process exterminating some tribes. On the other hand, in cities the merchants, in diggings the miners, established their own forms of justice to advance their interests: Vigilance Committees to protect property from thieves and arsonists; Lynch Law to remove and intimidate murderers, claim-jumpers, and competing ethnic minorities. As makeshift laws were judged good-enough-for-now, so were other improvisations in California's wildly free and rough capitalism, such as private fire-fighting companies, private mints turning out public currency, private mail delivery, and private toll roads and bridges—expedient, spontaneous solutions, all for private advantage and profit.

The price of everything from meat and champagne to shovels and explosives depended on the needs and the successes of the miners and their ever more complex operations. Through the booms and busts of the 1850s, letters, newspapers, and magazines reported fortunes being made not only in gold mining but in more familiar endeavors as well. A hotel, restaurant, or billiard hall back home in New York or Kentucky could provide a living, but in California such enterprises gushed profits of \$10,000, \$15,000, a year, even more. Farmers in Ohio and Europe, laboring as had their grandfathers, read of gold miners so hungry for fresh vegetables that they paid \$2 for a single watermelon and of a farmer near San Jose who sold his potato crop for \$8,000. And women, too, could strike it rich. *Hunt's Merchant's Magazine* in June 1852 published news of a widow in Downieville who baked pies she sold to hungry miners. She reported sales of \$18,000. Where else could so much money be made from a taken-for-granted female task?

No wonder Oregon's population in 1860 totaled only 54,415 compared to California's 380,000, even though Oregon had long been widely publicized for its agricultural riches, healthy climate, and prosperous families. Oregon's land versus California's gold.

A life of subsistence farming in the Willamette Valley versus gold dust enough to start a new life back home in upstate New York.

Oregon and California—neighbors, but a world apart. One a community of church-going families with the patience of traditional farming cultures; the other a transient encampment with few churches or families and the recklessness of a gambling society. Chaotic and volatile, life in California seemed to be a great lottery. Failure was so much a part of everyday experience that it carried no shame. But the prospect of returning home from a place famous for its profits and success without one's share—that sense of failure—kept thousands in the mines and the cities for many months, even years, longer than could have been expected. With the result that risk-taking and daring schemes became the basis for everyday decisions. Seeking swift profits, miners and merchants "were ready to change their occupation and embark on some new undertaking after two minutes consideration."

Unhesitant to grasp a real estate deal or an opportunity in a new steamboat company, frustrated miners took longer to ponder the new talk of big money in farming, a living many remembered without nostalgia. But growing numbers did return to planting because they heard so many reports of massive, one-season profits. Strike-it-rich-and-head-for-home became as much the common motive in farming as in mining. And it was as easy to get into farming as mining. Get-rich-quick melon and potato growers simply planted a likely plot near a town or city and claimed the land as squatters, not bothering to buy or lease while tending their crops. One season might fulfill expectations. So it went, unguided by old rules and practices, but energized by California prices.

Transients without concern for California's future, the hundred thousand miners of the 1850s owned neither the land they worked nor the shelters they slept in. By the expedients of their local mining codes they claimed temporary possession of patches of rocky ground, stretches of rivers, and excavations



Women and children were rare sights in gold-rush California. When posing for this daguerreotype, ca. 1852, these miners working the American River made certain one of the group's few women (and two little girls) stood clearly in the front. *Courtesy Oakland Museum of California.*

of shafts and tunnels. They lived in whatever shelter the weather required and available material dictated, decamping as carelessly as they had come, leaving holes ten, twenty, feet deep, open and unmarked, into which the drunk and the sober might fall to their deaths.

Life moved so fast that, despite its youth, Cali-

fornia soon harbored ruins among its hills—deserted cabins and villages of thirty and forty shanties overgrown with vines and bushes. And everywhere, scattered along trails and in mining camps, lay the debris of thousands of hurrying men who tossed aside old boots and bent shovels, jagged cans of sardines and oysters, brandy and wine bottles, broken



Alfred A. Hart, while recording the construction of the Central Pacific Railroad, photographed this early hydraulic mining operation near Dutch Flat in the late 1860s. Hydraulicking washed millions of tons of mud and sand into the valleys below before being outlawed in 1884. *Editorial office photograph.*

pick-axes, and dulled saws. No one cared. Few thought of staying in "the mines." Prentice Mulford, the miners' most eloquent and thoughtful spokesman, stated their shared attitude: "Five years at most were to be given to rifling California of her

treasures, and then that country was to be thrown aside like a used-up newspaper."

Nothing proved the miners' tour-of-duty mentality better than their endurance of "the loss of female companionship." Throughout the 1850s the propor-

tion of women to men in the mining regions seldom exceeded three in a hundred, and they were "neither maids, wives, nor widows." Letters, diaries, and newspapers year after year lamented that without the ladies' civilizing presence, California would remain an unfinished country, lawless and immoral. Yet most miners found the obvious remedy unthinkable. Almost none called for their wives, fiancées, sisters, or female relatives to come to California. No, the women belonged at home in the States, in the normal communities their men would soon rejoin. Maybe it would take longer than promised to get back, but no matter how long they labored in the Sierra, few miners ever lost the conviction that the gold country was a workplace, not a home. Contradictions and ironies—California offered wealth enough for a lifetime but inspired only dreams of escape.

Of all California's enterprises, hydraulic mining best exemplified the miner's ruthless quest for profits and his inventive genius for using technology to rearrange Nature for his purposes. By the 1870s, mining companies had built an 8,000-mile network of wooden flumes, aqueducts, and ditches to carry water from scores of man-made reservoirs in the western slopes of the Sierra down to an array of giant cast-iron nozzles in the foothills. From these "monitors," water shot out under tremendous pressure to slam against mountains, foothills, and bluffs, melting them into tumbling rocks, gravel, mud, and sand that washed through sluices where mercury caught granules and specks of gold. Caught them indeed, to the extent that hydraulic mining produced \$270 million in gold—and havoc downstream. Each year these operations washed millions of tons of "slickens"—the mix of gravel, mud, and sand—into streams, creeks, and rivers. The Yuba River's bed was raised thirty feet. Each spring the rivers flooded, burying miles of orchards and cultivated fields under a deep layer of infertile muck. Years of legal battles attested to the anger of the farmers and the power of the mining companies. Finally, in 1884 a federal court ruled in favor of the farmers, a landmark decision that for the

first time in America history protected the environmental interests of the many against the previously inviolate rights of the corporation.

That 1884 court introduced new voices that would be raised against the attitude and value system that had allowed, indeed directed, the devastation of forests, rivers, wildlife, agriculture, and even human beings. In an eloquent forecast of the outrage of John Muir and others who would condemn the exploiters of California's natural resources, a visitor described the mining regions: "Nature here reminds one of a princess fallen into the hands of robbers who cut off her fingers for the sake of the jewels she wears."

Wherever the jewels could be found, the miner was there, with ever more complex and powerful machines and explosives and processes for separating particles of gold from thousands of tons of crushed ore. The industrialization of mining developed in only a few years, from the helter-skelter treasure hunting of 1849, and the early 1850s to the corporate hardrock and hydraulic mining of the 1860s and 1870s. Through those years of change and expansion, San Francisco remained the catalyst, banker, and supplier—the capital of a mining empire. Known as "The City" from Alaska to Arizona, this rough, masculine city-state, with its foundries, machine shops, and banks, its ostentatious hotels, rowdy saloons, and famous bordellos, attracted the wealth and commanded the trade of the West. Rudyard Kipling visited "The Queen of the Pacific" in 1889. His admiring observations added luster to her image. "Recklessness is in the air. I can't explain where it comes from, but there it is. The roaring winds off the Pacific make you drunk with it. . . . The young men are experienced in business and embark on vast enterprises, take partners as experienced as themselves and go to pieces with as much splendor as their neighbors. . . . As regards certain tough virtues, they are the pick of the earth. The inept or weakly died on route or went under in the days of construction."

With an imperial reach that controlled fisheries in



San Francisco, known up and down the West Coast as simply "The City," saw a quiet population of 300 in 1845 boom to 15,000 by late 1849 and to an incredible 56,000 by 1860. This view, ca. 1860s, shows the use of brick structures in the business area at the water's edge, and multi-story homes with varied architectural detail, clustered in the hilly foreground. *Courtesy California State Library.*

Alaska, sugar in Hawaii, steamboats on the Colorado River, and the railroad across the Isthmus of Panama, San Francisco attracted the interest and respect of another British writer, Lord Bryce, renowned observer of the American scene in the late 1880s. "San Francisco dwarfs the other cities and is the commercial and intellectual center and source of influence for the surrounding regions, more powerful over them than is any eastern city over its neigh-

borhood. It is a New York which has got no Boston on one side of it and no shrewd and orderly rural population on the other to keep it in order."

Confident and sinful, San Francisco dominated national and world awareness of California. The two were synonymous. No other city west of Chicago commanded so much attention and publicity through the last decades of the century. Even Virginia City, with its fabulous Comstock Lode (\$37 million


produced in silver and gold in 1877), was controlled, indeed owned, by San Francisco banks and mining companies. Mark Twain said it best: Virginia City was "half colony, half suburb" of San Francisco.

The City dominated agriculture as well. Industrialized wheat farming, California's first boom crop, developed in the Central Valley during the 1860s. Wheat ranchers—some of them owned 60,000 acres and more—depended on San Francisco for financing and transportation. Mechanized by California inventions (gang plows, steam tractors, giant combines), the wheat industry shipped its produce (40 million bushels in 1890) out of San Francisco Bay on trade routes around Cape Horn to Liverpool, England, and thousands of miles westward across the Pacific to China.

So far away, yet so compellingly attractive, California was tied to the eastern states by wagon trails, stagecoach line, the Pony Express, a telegraph line in 1861, and the fastest, most popular transport for immigrants and businessmen, the steamship service operating in both the Pacific and Atlantic, connected by the railroad through the jungles and swamps of the Isthmus of Panama. In 1869 the transcontinental railroad displaced the Panama route and exemplified once again California's confidence in challenging Nature, this time the heights of the Sierra Nevada—where rails were laid through tunnels, over canyons, along precipices—and farther east across the Nevada desert. Proclaimed "The Work of the Age" (with most of that work accomplished by 15,000 Chinese laborers), the Central Pacific Railroad ended California's sense of being external and remote, a feeling expressed in everyday life with the phrase "back in the States." For twenty years that separateness had reinforced California's self-image and the national image of the Golden State as a world apart.

No other state, no nation, has had such a beginning, such a period of adolescent success and freedom. Think what it has meant to California's image,

its spirit, its psyche to have the Forty-niners as heroes, as Founding Fathers—compared to the Pilgrims. To have wild, rambunctious, better yet, sinful San Francisco as the Mother City, compared to Boston or Philadelphia.

The Gold Rush for California has become like the Civil War for the South, a romantic era proudly remembered, bestowing distinction and identity. As the defeated soldier has symbolized the south and the shared burden of great loss has created a feeling of misfortune and denial among southerners, the ambitious miner has symbolized California, and the shared sense that anything is possible has created a feeling of confidence and great expectation among Californians. 

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News of James Marshall's discovery traveled slowly—the first description of California's new-found gold did not appear in an eastern newspaper until August 1848. As more and more reports trickled east, the country's skepticism was replaced by an increasing enthusiasm, especially following President Polk's official confirmation in December. New York daguerreotype artist Gabriel Harrison captured the excitement in this view, titled "California News." *Courtesy Oakland Museum of California, Collection of Gilman Paper Company.*

The California Gold Rush as a National Experience

by Malcolm J. Rohrbough

On January 24, 1848, at about ten o'clock in the morning, James W. Marshall, employed by the entrepreneur John Sutter to construct a sawmill on the American River, picked some flakes of mineral out of the tail race. Marshall immediately identified these fragments as gold, and later primitive tests confirmed his judgment. Marshall's discovery initiated a series of changes that would affect not only the history of California but also the entire nation in the most dramatic and long-lasting ways. Although the Gold Rush began as a California event, it rapidly became a national and then international phenomenon. By the time its initial energy was expended, it had brought two hundred thousand people to California from all over the world, California had been admitted to the Union, and these powerful continuing connections had forged a bond between West and East.

In spite of Sutter's original determination to keep the discovery of gold a secret, news of the find spread outward in all directions, across land and sea. The response was immediate. Individuals and families trekked to the watercourses on and adjacent to the American River, and later when ships arrived in San Francisco Bay, passengers and cargoes were scarcely unloaded before crews deserted for the gold fields. Indeed, among the most striking images of the first months of the Gold Rush are the masts of deserted ships in San Francisco Bay.

In the late summer of 1848, the news of the discovery of gold in California reached the East Coast,

where it was greeted with great skepticism. The first information came in letters from California, some of which found their way into newspapers along the eastern seaboard. These were soon supplemented by reprints of articles from San Francisco newspapers, and finally, official representatives of the American government dispatched by the military governor of California appeared with documents and samples of gold. President James K. Polk's State of the Union Address of December 5, 1848, gave official affirmation of the presence of gold in America's newest imperial acquisition.

Suddenly it dawned on editors, public officials, community leaders, and Americans everywhere, that the stories were true. And what stories! Even allowing for exaggeration, the harvest of gold from the waters of the American, Feather, Cosumnes, and Mokelumne rivers was truly astonishing. Clear-headed observers—if such existed—agreed by the summer and autumn of 1849 that the average miner in good health along the watercourses of the Sierra averaged \$20 a day and carpenters in San Francisco the same, while day laborers—those who “wheeled dirt”—made \$14 a day. At the same time, agricultural laborers in the eastern half of the continent earned \$1 a day for twelve hours of work and wages for skilled artisans were \$1.50 for the same hours.

Newspaper editors, who had heretofore often expressed skepticism, now scrambled to set the largest headlines, and simultaneously searched for historical analogies to cover the breathtaking sig-

[illegible]

PORTRAIT OF MR MARSHAL, TAKEN
 FROM NATURE AT THE TIME WHEN
 HE MADE THE DISCOVERY OF GOLD
 IN CALIFORNIA



VIEW OF
SUTTER'S MILL
OR PLACE WHERE
THE FIRST GOLD
HAS BEEN DISCOVERED

John & Geo. O. Walton & Co. San Francisco, Cal.

nificance of this national bonanza. The historical references included "the El Dorado of the old Spaniards," "the dreams of Cortez and Pizarro," and "the Age of Gold." There was a new powerful force at large in the nation: "gold mania" or "gold fever" would cut a wide swath through the lives of ordinary Americans for a decade.

From the beginning, the accounts that spread across the nation from California to the East Coast in the winter of 1848-49 emphasized the universal nature of the search for gold. Indeed, the acquisition of a fortune was advertised as the routine work of a few weeks for individuals of every social rank. The first reports noted that servants made some of the richest strikes, and even small children found large nuggets. In this new world of gold, every class and every age uncovered wealth, and this wealth was not acquired by steady, hard work over generations. Instead, it lay on all sides for the gathering. One servant in Mexican California had worked for years to save a few hundred dollars from his slim wages; in the fall of 1848 he went to the mines and returned within a few weeks with several thousand dollars. When asked by his employer at home if he wished to collect his savings, the man replied no. He had worked hard as a servant for that money and intended to keep it safe, while the new money from gold had come easily, and there was more where that had come from. The streams of California had become everyone's bank, where new accounts could be opened at will and savings withdrawn as the occasion demanded. This new California attitude toward wealth quickly filtered into the consciousness of the nation.

In the half-dozen years from 1848 to 1854, some three hundred thousand gold seekers rushed to California to seize this opportunity for quick riches, and the Argonauts—as they were soon called in this age still familiar with classical references—harvested some \$300 million in gold from California's streams and bars.

These are aggregate numbers. We might usefully here make reference to some specific individuals. In

November 1847, Eddin Lewis, a prominent farmer in Sangamon County, Illinois, paid hired laborers \$1 a day to butcher 255 hogs and shipped 6,000 pounds of barrelled pork and lard south to the Mississippi River market. From pork and lard, as well as from the sale of live hogs, several sides of butchered beef, and 350 bushels of corn, Lewis recorded in his journal a cash income of more than \$350 for the year 1848. By contrast, in the fall of 1850, some 2,000 miles to the west in California, C. C. Mobley noted that he and his companions had averaged \$35 per day, or \$205 each, in one week; and \$25 per day, or \$150 each, the week before. That is to say, Mobley and his companions in two weeks, with a pick, pan, and shovel in California, had each made as much cash money as one of the wealthiest citizens of central Illinois after building his farm for a generation. Mobley wrote that his fortnight's labor "was doing a fair business. I am perfectly satisfied with it at all events." He should have been. And it is not surprising that so many rushed to emulate his example.

Aside from numbers—significant enough at mid-century—two other dimensions of this new access to wealth helped to give the California Gold Rush a universal quality. To begin with, in the early years at least, California gold was available to everyone. Not just to experienced miners; not just to those with name, education, and rank. Indeed, the fabled riches of California were open to anyone who owned a team of draft animals and a wagon to make the journey, and once there, the most rudimentary of tools: a pick, a pan, and a shovel. These common articles—widely available in this agricultural nation—were all that was necessary to participate in the most exciting search for riches since Coronado's quest for the legendary Seven Cities of Cibola some three hundred years earlier. In its initial stages, therefore, the California Gold Rush offered to the nation a new model for economic advantage in which wealth in the form of land, amassed by a lifetime of labor, was superseded by wealth in the form of gold, now harvested through the labor of a few months.



In the first few months of the Gold Rush, the mining was simple; no expensive equipment or experience was needed. This California miner posed with the tools of the trade—a pick, pan, and shovel. *Courtesy Oakland Museum of California, Collection of Matthew R. Isenburg.*

Another of the impetuses that propelled prospective Forty-niners to go west was the collective urge, that is to say, the banding together of Agronauts in companies. This chance to make the trip across the continent or the voyage by sea with friends and neighbors increased the attraction, and as companies organized, social pressure joined economic advan-

tage in urging prospective Argonauts to join before rosters were full. So the gold would become—for many Forty-niners—a community enterprise.

Consider the impact of the news of California gold on one community on Long Island, as captured by Prentice Mulford. Mulford was a freelance journalist, and he understood the hopes and fears of Forty-

niners, their families, and their communities as well as anyone who wrote about them. When news of the gold discoveries reached his village of Sag Harbor, on Long Island, this is what he wrote: "One June morning, when I was a boy, Captain Eben Latham came to our house, and the first gossip he unloaded was that 'them stories about finding gold in Californy was all true.' The report slumbered during the summer in our village, but in the fall it commenced kindling and by winter it was ablaze. Ours was a whaling village. By November 1848 California was the talk of the village, as it was all that time of the whole country. The Gold Fever raged all winter."

Into quiet and stable communities like Sag Harbor and hundreds of others, the news of the gold discoveries in California burst with unsettling effect. From the ports of Boston, Philadelphia, and New York, to Charleston and New Orleans; from the seat of government in Washington, D.C., to county seat towns across the Middle West; from the farming communities in the great interior valleys of the Ohio and Mississippi rivers to isolated settlements from North Carolina to Michigan, from Maine to Arkansas, California gold changed men's and women's life expectations and their views about the acquisition of wealth in fundamental ways. For a family, the prospect of gold opened up new horizons in the form of additional tracts of land, herds of cattle, mills and mill sites, new stores and goods to stock them, and better shops. Or on a more personal level, it offered the prospect of education (instead of work) for children, and for the adults, a life free from the endless repetition of heavy labor for meager returns. Among the most commonly shared visions was a future free of indebtedness. This was a world of innumerable small economic transactions, most of them by credit, and many ordinary American families were harried by debts of various kinds. As diaries and letters show, the future Forty-niners seized the news from the gold fields as a way to extricate themselves from these burdensome obligations that would normally take a lifetime of hard labor to discharge. "I do not

want to be separated from you—" one Forty-niner wrote to his wife, "but we have been struggling against the advances of poverty, and if by our separation of a few months we can rid ourselves of all that for the future and make ourselves, by a few months deprivation of each other's society, comfortable in money matters, how much better it will be than to put an end to our prospects and doom ourselves, to steady and profitless storekeeping till our Creditors come in and take all." And another concluded, "We will, in the space of two years, be able to square accounts with the world, which we could not have done at home for ten or fifteen years to come."

California became the symbol of a new life: a way to transcend the limitations of education, name, and family rank; a way to discharge the onerous obligations of the past and to start life "square" again. The appearance of so much money—more than \$300 million in the first half a dozen years—seemed to offer unparalleled opportunity to individuals and groups of ordinary rank and station. Gold fired the dreams of those who sought to advance themselves and their families, to transcend the drudgery of daily labor for marginal returns, to give to their children physical comforts and education that they themselves had never enjoyed nor had even dreamed of. One Forty-niner wrote to his sister from the gold fields: "One word in regard to my family, (God Bless Them) I want to see them very much but I cant come home yet. I must make some money before I come. I do not want to see my Children go barefooted while my neighbors' Children are wearing shoes."

With gold fever's powerful hold on the popular imagination and its rapid spread—compared by some to an infectious disease—the nation at the opening of 1849, turned from arguing over slavery to a new national debate. Was the discovery of gold in California a signal of a nation blessed by Heaven; or, alternately, was the road to California the road to national ruin? Community leaders could be found on both sides. Many leading figures in society, alarmed by gold's expanding influence, railed

against the new riches and the new values associated with their acquisition. Wealth acquired under easy circumstances had never fitted well with the values of this nation, whose civil and spiritual advisors had worried for two hundred and fifty years—well before nationhood—about too much time spent on the search for the riches of this world and too little in contemplating the next. One of these who issued a call for resistance was the Reverend James M. Davis of the Congregation Church of Woonsocket, Rhode Island. In a sermon entitled “The Duties of Females in Reference to the California Gold Excitement,” he called upon the the women of his congregation to mobilize against this community scourge and national curse. In “this age of excitement and revolution,” he directed women to begin to “vaccinate the souls [of their children] against this gold mania sooner than you do their bodies for small pox.” And women must then do the same for the men of the family, or else fathers, brothers, and uncles would soon be on the way to “the golden tomb.”

Many others, on the other hand, spoke of the gold discoveries as a Divine Blessing, national resources to be used for the national good. These public figures soon argued that the mass departures for California in the winter and spring of 1849 were not a selfish gesture, but instead that these bands headed for California represented the work (even sacrifice) of patriots to spread American civilization and culture to remote parts of this new continental empire. These new sons of liberty would replace California’s Catholicism with Protestantism, Spanish language and Mexican culture with English and American values; they would “Americanize” the most western parts of this newest addition to the Republic. So people went to California in the familiar spirit of the nation’s Pilgrim forbearers, with Bible and McGuffey reader in hands (and pick and pan in their packs). And if they found a mountain of gold, it was argued, so much the better, and their riches would be well deserved. In this struggle for cultural hegemony, it was appropriate that they should profit for doing the

business of the nation. A new purpose, an American purpose, was born.

With this conflicting advice from the pulpits and editorial pages as a backdrop, the debates in tens of thousands of individual families now took place. The question was whether to go or to stay at home. Surely these discussions occupied many long evenings in the winter of 1848–49, when a range of views about responsibility, opportunity, and obligations as husbands, fathers, sons, and siblings were set forth by wives, mothers, and daughters. Finally, came the decision to go (sometimes with the approval of the family, sometimes without), with the prospective Forty-niner holding up visions of a future of wealth for the family—for the absence in California was always couched in terms of the family’s benefit—and for personal achievement for the individual as well. On the other side, that decision—sometimes without family approval—brought tears, recriminations, last-minute pleas, and finally, resignation. And what of the tens of thousands who decided to stay? Their solemn declarations for remaining with family and loved ones, and the cries and tears of relieved family members, testified to the enormous risks involved and the fears they evoked.

Those who decided to go to California immediately turned to arrangements for those left behind, beginning with financial questions. Where should the family of the departing Forty-niner live, and at what cost? Who should manage the farm? The shop? The store? Who would advise and who would make final decisions? The Forty-niners often gave great authority to their wives, and, sometimes as a hedge against this authority, they often asked wives to rely on a male relative for guidance. There were innumerable questions about children—schooling, apprenticeship, work, even marriage. For single men, there were issues of their responsibility for work on the parents’ farm or in the shop. Who would replace their contributions to the family labor pool? For all the Forty-niner families there was the issue of responsibility for aging parents and other



The Apollo sailed from New York to San Francisco via Cape Horn in 1849, an 18,000-mile trip that could take up to six months. The Apollo's course, shown here, was charted by Joseph Perkins Beach, the son of the ship's owner. The original map is on display in the Oakland Museum of California's exhibition "Gold Fever!" Courtesy San Francisco Maritime National Historic Park.



More than six hundred children made the arduous overland trek to California with their Forty-niner parents. They helped out in the mines as much as they could, as shown in this early, rare daguerreotype, where three young boys, center, sit on the hillside. *Courtesy Oakland Museum of California, Collection of Ronald and Sandra Van Anda.*

dependent relatives. And behind all of these questions was the issue of who would provide financial support for the family of the absent Forty-niner if such support should become necessary. Many of these issues involved the transfer of authority from male to female hands and once worked out, provided a degree of stability at home upon the impending departure of the family's Argonauts—father, son, brother, or in-law.

Then came the departures. These had both private and public dimensions. At the moment of family parting, the Forty-niners and their families gathered

at the doorstep, or at the end of the lane, and later at the railroad station or the steamboat stop. There the Argonauts received—perhaps, as young men anxious to establish their independence, they endured—the emotional outpourings of their families, and, in return, reaffirmed their declarations to write, to remit monies to their families on a regular basis, and to come home laden with riches. And above all, they promised to come home soon. Even the most hardened Forty-niners later admitted that they were reduced to tears on their departures from their families.

The public departures of "companies" imparted a powerful sense of community, as hundreds of friends, neighbors, and even strangers turned out to celebrate the leaving of their Argonauts, to wish them well, to confirm for them the traditional standards imbued since youth, values to guide their voyages to and labors in California. For some, there were parades, with the Forty-niners singing gold-rush songs as they marched to the piers. And there were farewell sermons, preached to the departing companies, in which ministers admonished the Argonauts to act in accordance with the standards of their youth, to be mindful of the sacred trust of representing Christian values, and to return rich and unchanged to their loved ones and their communities.

Prentice Mulford described the events that celebrated the departure of the Forty-niners from his community: "As the winter of '48 waned . . . the companies one after another, set sail for the land of gold. The Sunday preceding they listened to farewell sermons at church. I recollect seeing a score or two of the young Argonauts thus preached to. They were admonished from the pulpit to behave temperately, virtuously, wisely, and piously. . . . How patiently and resignedly they listened to the sad discourses of the minister, knowing it would be the very last they would hear for many months. How eager the glances they cast up to the church choir, where sat the girls they were to marry on their return. How few returned. How few married the girl of that period's choice." And so the Forty-niners departed Sag Harbor and hundreds of villages like it.

As reality replaced fantasy, however, these absences—all of them longer than originally promised, and many of them prolonged—imposed heavy economic and emotional burdens on those left behind. The separations of months stretched into years, temporary arrangements to care for spouses and parents became permanent; family ties sometimes frayed in the face of continuing demands unmet and expectations unfulfilled. As the promises of remittances from the gold fields failed to materi-



This "gold-rush widow" holds a portrait of her Forty-niner husband. Another such wife, Sabrina Swain, writing to her gold-seeking spouse, bemoaned, "O, my dear William, when I contemplate my loneliness and your absence I am ready to exclaim: 'Would to God you have never left me,' for what is gold in comparison to my constant anxieties of mind. . . ." *Collection of George Eastman House.*

alize—more often the case than not—families found themselves thrown back on their own meager resources. What began as an exercise to compensate for the loss of temporary labor or income in a family gradually turned into a permanent support for wives, children, and aging parents. It was a change without clear remedy. The accounts of families and communities in the absence of Forty-niners (and in subsequent years) tell stories of solidarity and sharing; they also recount tales of selfishness, loneliness, and even destitution.

For some wives and mothers, the departures for the gold fields would lead to hardship, to recriminations about scarce resources, or to heated discussions about

responsibilities on the farm or in the store and obligations owed to aging parents and parents-in-law. For others, the prolonged absence of the Forty-niner meant a degree of independence and decision-making for wives and children, a new degree of control over time, however onerous the burdens. And for some women this absence surely provided a welcome relief from unwanted sexual obligations that resulted in annual or biannual child-bearing.

Within the communities that the Forty-niners left behind, economic and social arrangements of several kinds had to be adjusted. These included uncollected (and now uncollectable) debts mixed with the shortage of labor at harvest time. The marriage prospects of young women and young men (present and absent) had to be recalculated. Those who had made marital promises before departure found themselves betrothed to a shadowy, absent figure, and the spouses of departed Forty-niners became "Gold Rush widows," a phrase that captured the legal restrictions of the age without any of the benefits.

In the meantime, half a continent distant in California, the Forty-niners created new communities, in the form of companies or messes in the gold fields where men mined and lived together. Oddly enough, gold mining, a solitary and seemingly selfish enterprise, became, at its heart, an intensely cooperative venture. While miners formed strong attachments in the gold fields, most of them sustained as well their connections to their families and communities in the East. The correspondence that ran from west to east (like that in the opposite direction) sometimes took the form of a community bulletin board. Consider James Lyne of Kentucky, writing to his brother about friends and neighbors in California: "I saw Tom Ford on yesterday. . . . Tom himself looks well, & has not been sick for a moment. . . . His report is [as follows]: Tun Eastin who was for sometime sick in the Sacramento Hospital, has recovered, & procured a situation in running a circular sawmill there which augers that he will do well. . . . Ed Hall clears for him. David Hearnson who arrived soon after I did,

drives an ox team. Jim Wilson has been sick since his arrival, has made nothing. . . . he speaks of returning home soon. Gazlay & Hart are at the mines. Posey on the Yuba River getting timber. Foulks sick. W. & B. Dixon not far from Sacramento, both well & Buchanan dead. John Burbank, Ross & Light doing nothing at Sacramento; the two former very sick. So you can see the fate of those who were tenderly nurtured & so it is with nearly all who visit the mines, 1 probably in 100 being successful in good health & in procuring 2 or 3 thousand in gold after great toil."

In all, Lyne's letter mentioned fourteen Kentucky Forty-niners by name. That only two among them were actually mining for gold suggests the immediate proliferation of economic opportunities associated with the Gold Rush. Lyne rapidly identified the salient questions that concerned all those at home: health, wealth, and location. Those exchanges of news from west to east kept Forty-niners connected to their communities and thus diluted their anonymity (a powerful dimension of the Gold Rush) and served to monitor their activities in distant California that were reported home. Such detailed reports also noted drinking, gambling, and other forms of questionable California behavior that sparked admonitions from home. Some Forty-niner correspondents observed with mixed relish and sorrow the questionable California behavior of neighbors formerly of impeccable reputation; hence, new reputations were established and old ones confirmed or denied.

The adventure in California, so simple and straightforward when described to the family in the parlor, turned out to be much more difficult and complex; most of all, it turned out to be long. The Forty-niners who talked confidently of going to California and returning within a year soon had to admit that they would be gone at least two years, perhaps more. Over time, as they panned and later dammed with varying success alongside the watercourses of the Sierra, or sold goods (often on credit, which made it more difficult to leave), or found opportunity in

he many service industries that appeared, their families and communities back home changed too. Young children grew up, married, and began their own families with another generation of infants. Aging parents became ill and died. As months stretched into years, families seemingly permanently split by the departure of the Forty-niner reformed and moved forward, with the absent Argonaut an increasingly shadowy presence within the house, the hop, the fields, and the church.

The issue of when to return came to dominate relations among Forty-niners, their families, and their friends. Within the communities were the merchants and other public figures who had often put up funds to finance the local Forty-niner, sometimes as a civic gesture, sometimes as an investment. After 1851, the local banks often did the same, on a business basis. For the Forty-niners in California, the sight of gold redoubled their determination to seize a share. Even so, as many finally acknowledged that the search for gold was a gigantic lottery against impossible odds, others continued to work in the gold fields in the hope that a single fortunate strike could wipe out the frustrations and absences of years. However remote the chance, the Argonauts wanted a ticket in the great lottery, so they stayed another season, then another season, in search of the elusive "raise" that would reward their families and also secure their own local reputations.

The California Gold Rush raised for the first time in the experience of the American frontier the specter of failure on a large scale. This failure was the more striking because of the many published reports of astonishing successes and the high expectations of the families and communities of the Forty-niners, expectations fed in part by the Argonauts themselves in their campaigns to join the trek West. The failure of so many to achieve success comparable to the promises made to families and the great wealth trumpeted by newspapers produced a quandary: How could one return with little or nothing? How could the departure of parades and uplifting

speeches and prayers lead to a return in anonymity with few rewards for the family and none for the local investors in the community? Along with these awkward questions were the casualties wrought by continuous physical labor of the hardest kind under the harshest conditions. Many Forty-niners became ill or injured; some died. And all aged, made old by the unending labors in streams and in diggings that aged the body and spirit. One editor commented of the toll exacted in the placers: "No where do young men look so old as in California." Whether from distaste or frustration or embarrassment, some severed contact with their families, disappearing forever into the golden haze of California.

Prentice Mulford provides us with a benediction for the thousands who never returned: "Sometimes in visiting my native village I stand before one of those old-fashioned houses, from whose front door thirty-four years ago there went forth for the last time the young Argonaut on his way to the ship. But within all are strangers. The father and mother are past anxious enquiry about their son. The sisters are married and live or have died elsewhere. A new generation is all about. They never heard of him. The great event of that period, the sailing of that ship for California, is sometimes recalled by a few—a few rapidly diminishing. His name is all but forgotten."

The California Gold Rush, with its promise of unprecedented wealth, offered one of those rare moments in the history of the nation when citizens of the Republic (of every condition) might assess their condition—past, present, and future. The response of many reflected their dissatisfaction with their present lives and their futures. In examining their letters, diaries, and journals, what engages the reader is not so much their hopes and expectations in the new world as their bitterness toward the old. From the remote mining camps and the stores and shops of the California towns and cities, they poured out to their wives and parents and children and friends their memories of long, dreary days of labor for little so their families could subsist, but nothing more.

From the beginning of the Gold Rush, among the pioneers seeking greater wealth, security, and freedom, were African Americans, free and slave alike, and mostly skilled and well-educated. Taking up residence in mining districts, farm regions, and especially towns and cities, they numbered about three thousand by 1860. Although suffering all manner of job and civil rights discrimination and personal indignities, black people nevertheless established families, businesses, churches, newspapers, and social and mutual protection organizations. Particularly, they were devoted to seeking education and improvement for their children. Arriving in the early 1850s, Elizabeth Thorn Scott became the first black teacher in Sacramento in 1854, when she opened the city's first separate school for black children, who, along with Chinese and Indian children, were then prohibited from attending the regular public schools. *Courtesy African American Museum and Library at Oakland.*



The comments that run like threads through letters sent east reflect on the degree to which thousands thought themselves ill-used by the system of continuous labor for minimal returns under which they had previously worked in America's economic, social, and political democracy. A. P. Josselyn captured this sense of a new beginning when he wrote of the changed world view of California: "I never want to work in Ohio for \$1 or \$1.50 per day and I think I shall never do it. My bones shall rot in some of these mountains first, strong language you may think but I shall stick to it." And Eliza Spiegel offered the judgment that, however arduous the work in the rushing mountain streams, "it was better than hoeing corn for fifty cents."

The Argonauts who went west in 1849 and the next decade, even in the midst of the disappointments that invariably came to many (if not most), embraced the prospect offered by the wide open nature of life in the mining camps. That is the reason they came to California in continuing numbers throughout the decade of the 1850s, long after the fantasies of 1848 and 1849 had been brought rudely to earth. What they sought (and sometimes found) was a world in which any men and women—there were increasing numbers of women after 1851—might make a substantial sum, whether from the placers or in the growing and profitable service industries, in which new arrivals labored on an equal footing without regard to family name or educational advantage, where

Forty-niners might work at any occupation without sense of inferiority. And so medical doctors washed dirt in the placers alongside farm laborers, lawyers looked in boarding houses, and the sons of wealthy families tended bar in saloons.

In California at mid-century, many Forty-niners confronted a different kind of judgment day, in which those who had little or nothing would acquire something, and in so doing, never again find themselves under the necessity of hoeing corn for fifty cents a day in order to feed their families. Like the notion of reincarnation that emerged in mid-nineteenth-century America, here lay the chance to start gain on a more equal basis in a new world (or at least newer; it was somewhat frayed by, say, 1860).

Then, too, the California Gold Rush produced an endless array of surprises. A divorced woman who had become a family outcast made a handsome living by baking pies; miners' wives made more money doing laundry than their husbands did working their claims; the poorly regarded fourth son of a prominent family developed a profitable business delivering letters to the mines; two African-American men brought to California from North Carolina as slaves found an opportunity for a degree of economic and social freedom. California turned local reputations upside down. Some, of whom much was expected, failed, while others, whose social standing and perhaps even moral standing were suspect, turned out to have the right qualities to meet the new challenges of gold-rush California.

As the decade of the 1850s drew to a close, the attention of large portions of the nation fastened increasingly on sectional conflict and the institution of slavery. Yet we should not forget the lingering effects of the rush to California in pursuit of gold, a fascination that had now spread across the West: the Forty-niners—for whom the years spent in California became the great adventure in their routine lives—became honored pioneers in their communities, to be celebrated as the Argonauts of '49; those families divided by the permanent absence of a

young man departed for the gold fields on that long ago spring morning reformed and tried to move forward in spite of their loss; a few families found surprising wealth that changed their local status not only as people of wealth and substance but also as those who had succeeded in the challenges of California when so many had failed. The ties that spread across the continent in the wake of this great migration turned out to be lasting ones. The Civil War was about joining North and South; a decade earlier in the 1850s, the California Gold Rush had been about joining East and West.

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The Gold Rush and the Shaping of the American West

by Patricia Nelson Limerick

I take my turf for this paper to involve both a geographical and a chronological spread. First, and very briefly, I will consider the ways in which the Gold Rush shaped the American West in terms of the spread of mining throughout the interior. (That is, after all, the purpose of the symposium, and one wants to do a little in support of the concept of truth in advertising.) Then, and a little more expansively, I will address the situation of western mining in our own times, and how dramatically its relationship to American society has changed in a century and a half. The last part of the paper will ask you to reflect on the question, what on earth is the kinship between the miners of the California Gold Rush and the people who are working—and working with great vigor—in gold mining in the American West today? Why does “Sutter’s Mill” have such widespread name recognition, while the phrase “Carlin Trend” leaves nearly everybody looking blank?

Let us turn, first, to the topic of how the California Gold Rush shaped the American West in general over the last half of the nineteenth century. I’ll cover this briefly, in part because much of this is familiar to people who follow gold-rush history and also because I am, to a degree, returning to ground I covered in my book *The Legacy of Conquest* (1987). For an author, however, returning to a topic you wrote about eleven years ago is not an entirely dull or predictable experience, because, generally speaking, a year or two after you have written something, you have entirely forgotten what you said. “Well, this is quite remarkable,” you can say when you read something that you, in fact, wrote; “I had no idea I knew

anything about that.” Less gratifyingly, on some occasions a reading of your own prose will bring quite a different response, on the order of “I wonder what in heaven’s name I could have meant by that.”

When I was in graduate school, I took a class with the great historian of the South, C. Vann Woodward. About half of the course books were, of course, by C. Vann Woodward. When we would stumble around in discussion, trying to decide if we should say, in asking questions about the book, “Did the author . . . or . . . did Mr. Woodward . . . or . . . did *you* . . .,” then Mr. Woodward would say to us, “We shall proceed as though the author were not present.” This, of course, made us want to say, “That would be a great deal easier to do if you would leave the room.” On one occasion, trying to help us with this dilemma, Mr. Woodward said of one book, his biography of Tom Watson, “It has been so many years since I wrote that book, that I hardly feel like its author.” As a twenty-one-year-old, I found this baffling, or even pathetic. What could this poor old fellow be thinking—didn’t it *say* C. Vann Woodward on the cover? How could he *not* feel like its author?

Well, now I have come to a complete understanding with Mr. Woodward, at least on this count. Thus, when I read *The Legacy of Conquest*, I experience a certain sense of freshness and surprise—freshness and surprise that might suggest mental illness if it were not so common among authors. I was pleased to discover that most of what I wrote in 1986 about mining still made sense to me. In terms of the general impact of the California Gold Rush on the entire West, I am more than willing to claim author-



Sutter's Mill.

Sutter's Mill, in the Sierra foothills along the American River, where entrepreneur John Sutter's employee, James Marshall, discovered gold on January 24, 1848, touching off the greatest mining boom in history. This drawing was made by William McIlvaine. *Courtesy Bancroft Library.*

hip of this sentence: "Rather than 'settling' the region, mining rushes picked up the American West and gave it a good shaking—and the vibrations have not stopped yet."

Let me very quickly review the nature of this shaking, as it spread from California throughout the West. How did the California Gold Rush shape the West? Here's a top ten list of the ways in which California precedents moved into the interior (and I'm pleased to say, on behalf of continued mental vigor

into middle age, that most of these did not appear in *Legacy*).

First, and in many ways most important, mining rushes created the maximum degree of friction between miners and Indians, and set in motion the process that would leave natives displaced, removed, and relocated. It is hard to imagine a system that could create more in the way of troubles for Indians: the discovery of precious metals, and the movement to exploit them, followed mandates that paid no

attention to the prior negotiation of Indian treaties and land cessions; mining rushes flung white Americans around the western landscape, into Indian terrain, in a way that left few areas untouched, and also left few reasons in the minds of the prospectors and miners, as to why they should restrain themselves and their ambitions until a better arrangement could be made with the natives. This is not to say that the expansion of farming or ranching had benign and beneficial effects on natives, but it is to say that mining escalated and emphasized the qualities of haste and bitterness in the conquest.

Second, mining, throughout the West as in California, rested on the white American talent for claiming legitimacy: that is, white Americans in mining rushes were clearly, unmistakably, newcomers themselves, and yet, even the recentness of their own arrival did not cause them a moment's hesitation when it came to claiming status as the legitimate occupants, the people who had the right to claim and use the local resources, and to exclude, and to brand as illegitimate and undeserving, people of other nationalities, particularly Mexican or Chinese.

Third, mining throughout the West meant a rapidly urbanized kind of settlement, with concentrated populations, in quite a contrast to the more dispersed, rural pattern of settlement in farming and ranching. And, given how the West has turned out to be the nation's most urbanized region, the mining pattern of settlement turned out to be the shaping pattern for the regional future.

Fourth, and very closely tied to the third influence, following on the California pattern, mining was a disheartening chapter in the history of physical health in the West. Concentrated populations in thrown-together, instant towns became a horror in public health and sanitation. At one of the consultants' meetings for the Oakland Museum's exhibit, the people at the museum kindly indulged me when I proposed that the museum explore a new frontier in exhibition techniques, by including a little booth into which exhibit visitors could step, and *smell* the smells of a mining camp—sewage and rotting food and a collection of people not overcommitted to bathing. All through the West, mining and unhappy sanitation coincided, and I go on about this miser-

able point because it shows how mining presents such a conspicuous contrast to an otherwise well-established pattern in the perception of the West: namely, of the West as a place where ailing people went to recover and regain their health. Many, many gold-rushers—from a combination of changed diet and poor sanitation—had just the opposite experience, of going West and getting sick, sometimes fatally, and that poses quite a contrast to the usual thinking about the West as a healthy place that restores and reinvigorates the ailing.

Fifth, following on the precedent of the Gold Rush, participants in mining rushes elsewhere in the West were rarely in a position to provide their own food. These communities, for all their legendary association with hardy independence, were some of the most dependent human communities imaginable, particularly in relying on someone else to feed them.

This, of course, had quite a paradoxical effect, which we will call precedent Number Six, by which mining both provided a market for farmers and threatened the working conditions of farmers. The demand for food, in other words, presented such a hearty market that others took up farming and ranching in the area, and yet—here's the paradox—the earliest complaints about the environmental effects of mining came from farmers, who found that hydraulic mining, especially, made a mess of their land and water.

Pattern Number Seven has thus introduced itself: mining, in many parts of the West, as in California, set up the framework by which Americans would allocate and distribute—and fight about and squabble over—water. This is really quite striking, given that so much of western water use would end up concentrated in agriculture. And yet prior appropriation, a mining principle—“first in time, first in right”—set the terms for much of the custom and law governing the ownership of western water.

Pattern Number Eight concerns the unusual gender demography of mining settlements in their early phases, the much-cited numerical dominance of males, as well as the curiously concentrated cultural performance of masculinity that characterized life and social relations in western mining towns. Para-



FIGHT WITH THE INDIANS IN 1852.

A contemporary newspaper drawing of an attack by Trinity County miners on local Indians, 1850s. Claiming to avenge the murder of a white butcher, pioneers massacred more than one hundred natives. Because of frequent such assaults on Indians by miners and other new gold-rush migrants, encouraged by local, state, and federal authorities, the once-large population of California's native peoples declined between 1848 and the 1860s by more than 85 percent, from more than 150,000 to barely 20,000. Massacres were only part of the cause for the decline, however. Intensive gold-rush development and immigration, accompanied by harsh discrimination against Indians, undermined their livelihoods by forcing them from their lands and destroying their resources, while allowing them few alternatives in the new way of life. The level of violence and death and the speed at which people and cultures vanished were unequaled in the entire history of settlement of the American West. *Courtesy Peter Palmquist.*

oxically, this preponderance of males dramatized the significance of women, whether in the various declarations of faith that respectable white women were the necessary pillars and supports for civilized order, or in the income to be made from the fact that many white men hated to do their own laundry (should this be in the past tense?), or even their own looking.

Pattern Number Nine involves nostalgia—the extraordinary alchemy of memory, by which many, many participants in the Gold Rush, and in later western mining rushes, had, in immediate terms,

quite miserable experiences—they suffered from regular old physical sickness and, maybe more depleting, from draining and debilitating homesickness; they worked hard and, oftentimes, ended up with nothing to show in the way of a reward for that labor; they felt desperate loneliness as they tried to forge some sort of ties with the collection of strangers in whose company they had landed; very frequently, they cursed the various sources—news-papers, guidebooks, and rumors—that had worked their expectations up to such heights and left them so bitterly disappointed. And then, after all that

endurance and sorrow and disillusionment, they went home and began telling anyone who would listen what a glorious time they had had in the West.

Nostalgia is a remarkably powerful force in the human mind, at work in every sphere of our lives (I myself just wrote an essay this week that conveyed nostalgia for graduate school). And yet I would put participation in mining rushes right up there with wartime combat, in terms of miserable experiences that come, really rapidly, to glow in memory with a charm they never had in their immediacy. History presents few better opportunities to observe and appraise the workings of nostalgia than in the memories generated out of the California Gold Rush.

And yet I would point out just one puzzle: for all the floods and tides of nostalgia poured forth by veterans of western mining rushes, the cowboy still won. That is, in the competition for legendary westerner, star of dime novels and Hollywood films and TV shows and Marlboro commercials, the prospector and the miner never got out of the starting gate. There is, perhaps, an obvious explanation for this puzzle. It may offer vindication for a theory I have proposed on other occasions: that it wasn't, in fact, the *cowboy* that the American public found so profoundly attractive and appealing. Maybe it was actually the *horse*, who on screen usually looks gorgeous and elementally charged with energy, especially when galloping, in a way that few humans of any occupation or profession can match. The prospector's burdened burro is a pretty pathetic competitor for a cowboy's gloriously galloping horse, and maybe that is where mystery resolves itself. But it still seems peculiar to me: all those participants invested all that nostalgia in mining, and yet the novelists and the filmmakers mostly spurned the miner and lined up to celebrate the cowboy.

Tenth, and after nostalgia, is the factor of abandonment, by which western mining, following the California model, involved an extraordinary degree of transience and outright, undisguised indifference to the fate of the place undergoing the mining. The scale of abandonment here tests the imagination. The *New York Times*, for instance, has said that there are in the West "more than 500,000 abandoned mines," and this may be one of the most doubtful statistics

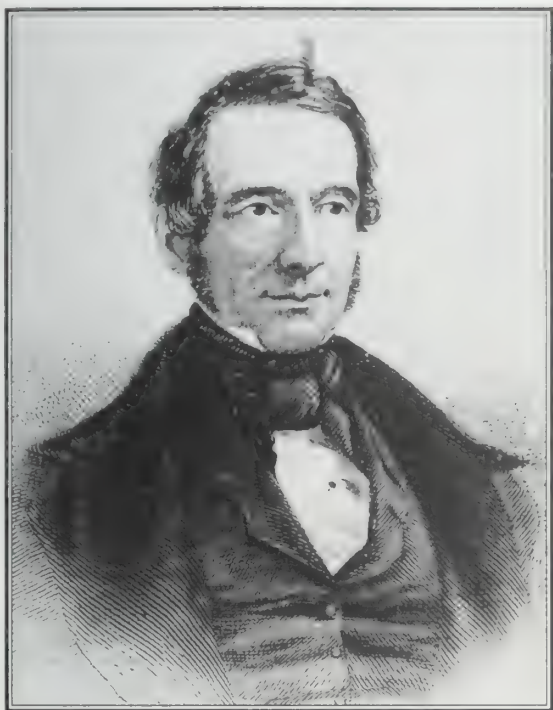
ever to appear in that distinguished newspaper, since there has never been anything like an inventory and accurate counting of these sites, and 500,000 may, in fact, be a significant underestimate. While their operators moved on and forgot these mines, many of them are getting attention today (as we'll explore soon), since they not only make for precarious terrain, many of them also leak acid and heavy metals.

There is much talk in the interior West today about sustainability, about how we can build sustainable economies and sustainable societies. Most of the time, I have no idea what, exactly, people mean by this, but when I am particularly confused by these exhortations to sustainable lifestyles—usually delivered to me by people who have just driven up in their sports utility vehicles—I say to myself, "I'm not entirely sure what they mean, but I *think* they mean the opposite of mining."

While the interior West was very much shaped by these ten California Gold Rush precedents (and no doubt others that I would go on to explore if I weren't lulled by the sense of completeness that comes with a metric round number), there were also some significant differences, which, at the risk of simplification, can be summed up in two points. First, precious metal ores in the western interior—whether of gold or silver—usually were more complicated than they had been in California, and that, in turn, meant that the placer phase, in which men could come upon individually accessible windfalls, harvestable with one person's labor, was usually very brief, if it happened at all. Thus the emergence of mining as an industrial, capital-intensive, wage-labor employing endeavor was even more rapid in the interior than it had been in California. And second, precious metal ores in the interior had a way of appearing in territory that was much rougher, both in landforms and in climate, than the California foothills.

So mining, I said in *Legacy*, "gave the American West a good shaking—and the vibrations have not stopped yet"; and while that seems partly true, ten years later, it is not entirely convincing to me. Why? Well, consider the moral to the story of Walter Colton's disrupted breakfast.

Walter Colton was, of course, the alcalde of the town of Monterey at the time of the discovery of gold.



A lithograph of Rev. Walter Colton (1797–1851), Yale graduate and naval chaplain in the Mexican-American War. Arriving in California in 1846, Colton became a judge and alcalde of Monterey. He also founded the first newspaper in California, *The Californian*, and was the builder and proprietor of Colton Hall, the large neo-classical Monterey building that housed the state's first constitutional convention in 1849. Courtesy Society of California Pioneers.

When the word of the gold discovery got to Monterey in the summer of 1848, many residents departed for the foothills. Among those departing were a number of people who had worked as domestic servants. "The gold fever has reached every servant in Monterey," Colton wrote. "None are to be trusted in their engagement beyond a week; and as for compulsion, it is like attempting to drive fish into a net with the ocean before them."

The departure of servants for the gold fields soon came to affect the matter of breakfast. Two military officers shared in this dilemma with Colton—Colonel Richard Mason (military governor of California) and the commander of a navy vessel in port at the time. These three elite gentlemen found, as Colton said, that

"our servants have run, one after another, till we are almost in despair"—and, in case we have drifted too far away from the issue of racial subordination in the Gold Rush, it is probably important to quote Colton's next line about departing servants: "Even Sambo, who we thought would stick by us from laziness, if no other cause, ran last night; and this morning, [now we get to the breakfast issue]. . . we had to take to the kitchen, and cook our own breakfast. A general of the United States Army [didn't he mean a colonel?]; the commander of a man of war, and the Alcalde of Monterey, in a smoking kitchen, grinding coffee, toasting a herring, and paling [sic] onions! These gold mines are going to upset all the domestic arrangements of society, turning the head to the tail, and the tail to the head. . . . The gold mines have upset all social and domestic arrangements in Monterey; the master has become his own servant, and the servant his own lord."

This is a classic and memorable statement of the Gold Rush's disruption of the social order, which seems to harmonize with my statement in *Legacy* about the shaking given the West by mining. But the moral of the story of Walter Colton's disrupted breakfast now seems to me to be something of the opposite of a seriously shaken social hierarchy. That is, it seems to me that the surprise here is how rapidly the order restored itself, how rapidly hierarchy got back in charge. The interlude of "economic democracy," to use Malcolm Rohrbough's phrase, seems very brief, very passing, and the rapidity by which conventional arrangements of power and privilege reconstituted themselves seems to be the story that emerges for the long haul. So, yes, the West received a shaking from mining, but the hierarchy and distribution of privilege in American society, it seems to me now, stopped shaking pretty fast.

Which brings me to the second part of the paper, the truly astonishing journey of western mining from 1848 to 1998. In the mid-1980s, it looked like precious metal mining in the American West was over and done with. The high-grade deposits had been found and worked over; American mining corporations were much more interested in prospecting overseas. *Business Week* in 1984 published an article called "The Death of Mining," and in 1986, the

western historian Michael Malone published an article called "The Collapse of Western Metal Mining: An Historical Epitaph." He acknowledged that mining had gone through many booms and busts, but "this time," Malone concluded, "there seems no possibility that metal mining can recover to anything like its former status in the region."

Fortune-tellers and futurists have never had to fear much in the way of competition from historians. I suspect that what happened here, when we all thought that mining had gone into its final slump, is that we were all operating with a kind of unimaginative, technologically simplified notion of the idea of depletion. Eventually, we were all inclined to think, if people just keep mining, they will mine out the resources, and that will be that.

Well, guess again.

In the mid-1980s, various authorities announced the end of precious metal mining in the West. Right after they announced this, western gold mining started off on a boom that has equaled the extraordinary productivity of the early 1850s in California. Right after we got these various epitaphs and obituaries for western gold mining, the industry launched what the *New York Times* called "a new gold boom, the biggest in American history." The Carlin Trend, the *Times* says, is "the largest known deposit of gold in North America," the "most important gold discovery outside South Africa this century." In terms of production, *High Country News* has called it "the largest gold rush in American history," a gold boom that matches or even "dwarfs any in the history of the West."

The secret, of course, turned out to be low-grade ore—ore with microscopic gold, ore that never causes anyone to exclaim "Eureka!" because no one can see it is there. This is gold that would be perfectly useless if all we had was the methods of the nineteenth century, or even the methods of much of the twentieth century. The current gold boom relies on the process of open-pit mining, by which a tremendous amount of rock gets dug up and crushed, and the process of cyanide heap-leaching, by which a cyanide solution gets poured over the pounded-up ore, and the cyanide captures the gold and positions it where humans can recover it.

The center of this new gold boom has been Nevada, and especially the area around Elko—the forty-mile stretch called the Carlin Trend. But this enthusiasm—for microscopic gold, secured by the use of cyanide leaching—has hit lots and lots of places in the interior West, so that the last decade has seen a proliferation of these open pits. An open-pit mine is a hard thing to describe in words; on site, the scale really does shake the mind. As a poor substitute, consider the size of American Barrick's Goldstrike mine near Elko: the pit, in 1992, was two miles long, three-fourth of a mile wide, and 1,800 feet deep. A reporter taking a plane flight over the mines outside Elko struggled for words and finally could only say, "I am dumbfounded by the scale."

Recently, I have asked all sorts of people if they can identify the term "Carlin Trend," and, while I have gotten a few guesses about the possible influence of George Carlin, I have gotten mostly blank stares. This has left me with a great curiosity about the workings of public attention. Here we have a gold

Documentary and visual evidence attests to the continuities between pioneer and modern mining, particularly mining's devastating impact on the environment. Excavation of large earth pits, for example, began in California with the development of hydraulic mining in the 1850s and 1860s (see photograph opposite and above). Great arcs of water, shot from "monitors" (water cannons) at tremendous speed and force, not only gouged out canyons in the California mountains and foothills, but also sent masses of sand and gravel debris downstream to clog rivers, marshes, and San Francisco Bay, impede navigation, and unleash floods that devastated valley farms and towns. This historic photograph of the famous Malakoff Pit near Nevada City, ca. early 1880s, was used as evidence in the federal court case, *Edwards Woodruff v. North Bloomfield Gravel Mining co., et al.*, that in 1884 halted hydraulic mining, one of the first instances when public authorities placed severe limitations on an entire industry because of its environmental destructiveness. Photograph from *California Historical Society*, FN-29935. In the 1990s, a new, and even more profitable mining boom has occurred. Huge open-pit mines, such as those in Nevada's Carlin Trend (see photograph opposite, below), use explosives and giant earth movers to excavate masses of low-value ore for retrieval of gold through the cyanide heap-leach process, which has profound and long-term environmental consequences. Courtesy Mineral Policy Center, Washington, D.C.



rush that dwarfs any mining activity in the preceding century, and it has earned, from the public, apparently, a great yawn.

Might it be that the 1849 California Gold Rush set a standard for excitement and compelling human drama by which the 1990s gold rush is just unmistakably, unredeemably dull? Is this simply a restatement of an historical pattern by which mining catches the public attention when it is a small-scale, individualistic operation, and loses attention as it becomes big and capitalized? Is there some sort of governing principle by which entertaining stories get choked out by the increase in scale of an industry? The contrast still seems to me worth a moment's contemplation. In the 1850s Gold Rush, record-keeping itself underwent an extraordinary boom, with (from the historians' perspective) a glorious burst in the production of diaries, journals, letters, and personal narratives. But if the Carlin Trend, for all its wealth, has generated even one written autobiography or personal narrative, it has been very privately published.

The characters of the California Gold Rush do indeed look very bright and amusing when placed in contrast to the little-known figures of the 1990s gold rush. If I am not doing very well in getting any name recognition for Carlin Trend, I bet I would do even worse with the name "Peter Munk," the Canadian capitalist who is the head of the gold mining company American Barrick Resources Corporation (it is named *American Barrick*, though it is a Canadian company). American Barrick is the operator of the astonishingly productive Goldstrike Mine in the Carlin Trend I described a moment ago. One of the remarkable contrasts between western mining in the past and western mining today involves American attitude toward foreign enterprise. In the nineteenth century, American hostility toward the presence of miners from France, Australia, Mexico, Chile, and China was chronic and persistent. In the late twentieth century, many of the companies making the profits are owned by Canadians or Europeans, and yet agitation over this flow of wealth out of the United States has been muted, even silent.

If Peter Munk, CEO of American Barrick, were to write his personal narrative, I suspect that we would

read it more out of obligation than interest. Before he devoted some of his attention to gold, Munk had headed a Canadian company that made stereos, and then he formed what became the biggest hotel chain in the Pacific Basin, and now he is at work on a business-park development in Germany. If we were interested in mining, then, we would want to use the index of Mr. Munk's autobiography pretty strenuously, trying to spare ourselves the sections on stereos, hotels, and business parks. Even when we came upon the sections on mining, it would not be a surprise if, after a page or two of Peter Munk's personal adventures in finance, we had found ourselves thirsting, once again, for the earthy and grounded company of Alonzo Delano and William Swain and Sarah Royce. Peter Munk is a fellow who says things like, gold "is merely a commodity, like cotton or wool." While this proposition is technically true, it is not an observation that conveys much of the passion and excitement we have sometimes seen directed toward gold and its discovery.

But there seems to be *one* topic that understandably brings out strong passion in Peter Munk: in the words of his profiler in the *New York Times*, Munk is "a fervent exponent of the philosophy that executive rewards be linked to company performance." With the profitability of American Barrick, if Mr. Munk did not become fervent and passionate on *this* subject, it would be important to start checking his pulse.

So I suppose that the scarcity of public attention paid to the gold rush of the 1990s may be easy enough to explain. And it may be that the most exuberant phase of this mining boom is already winding down, given the fact that gold prices have gone into quite a slump (though, given the track record of historians as prophets, I am not going to try anything in the way of prediction of the gold mining future). Still, there is one element of the current gold boom that seems sufficient to awaken a little of our interest, and that is the remarkable way in which the term "reclamation" figures in everyone's discussion. As one mining professional told me recently, everyone in the business realizes that it is now very unlikely that they will get to mine if the local community opposes them. Moreover, in the last few years, companies have been required to post a bond

to cover, theoretically, at least, the costs of reclamation, if they should go bankrupt and not be around, is a company, at the time of the clean-up. Moreover, a company buying an old mining site, for purposes of reclaiming the tailings or waste rock, now assumes liability for the clean-up of the old mine as well.

All of this attention to reclamation and restoration is quite a break from the patterns of the past. And yet, as we track the journey of western mining through time and through memory, in other ways the patterns of the past seem quite persistent. As one illustration of the state of affairs in 1998, the *Denver Post* on January 22, 1998, carried an Associated Press story with an unconvincing headline: "California Ready to Mark Anniversary of Gold Rush." I am not exactly sure how you could tell if a group of people had reached, certifiably, a "state of readiness" to mark an anniversary. But the Associated Press story itself left me pretty well convinced that, whatever defines that state of readiness, California is not there yet. The discovery of gold in 1848, the reporter told us, "changed California from a pastoral wilderness into the innovative, materialist state of today." California before the discovery, the reporter says further, "had the sleepy flavor of its agriculture-oriented Californios settlers."

In reading a line like that, one has to be struck by the proposition that academic historians are getting nowhere when it comes to communications with the public. Historians have been trying hard to counter the notion of California in January of 1848 as a "pastoral wilderness"—a place without history, a place with, at best, insignificant human presence, a place where both nature and people slumbered their time away. Seeing that picture appear in a nationally published story tells us something about just how ineffective western historians have been in our efforts to influence public thinking about western history.

In another, more important way, this story proved useful to me because it brought to my attention an extraordinary contrast in how Americans in 1998 are living with and interpreting the history of mining in the American West. First, to be properly struck by this contrast, remind yourself that one of the central campaigns in western environmental affairs these days is the effort to cope with abandoned mines—

to address the leakage of water freighted with acid and heavy metals from old mines, and to explore the concept of reclamation of mined areas, such as revegetation and sometimes even the backfilling of old pits. While these efforts are limited and incomplete, they are nonetheless striking, demonstrating a surprisingly well-rooted societal commitment to repairing the damage and restoring the disrupted sites of mining in the past.

Here, in the Associated Press article, is a quotation from Robert Elsner, former executive director of the California Gold Discovery to Statehood Sesquicentennial: "We're not going into denial that Native Americans who had lived here for hundreds of years and Mexicans and Chinese and all the others were abused," he said. But then he added: "We're not going to wring our hands. We're going to acknowledge that they were not treated well and they have a part of Gold Rush history. We're saying, 'Commemorate the past; celebrate the future.'"

I am in Mr. Elsner's debt for that remark. Reading it, one has to realize that "wringing our hands," and, in fact, "wringing our federal and corporate budgets," is one way of describing the activity that we are pursuing in response to the environmental damage done by western mining. This goes beyond rhetorical expressions of concern, to efforts to designate Superfund sites, plug acid drainage, remove or cap waste rock and tailings freighted with dangerous heavy metals, and generally clean up the messes made in the past, often with the commitment of substantial funding.

If there is any comparable movement afoot—to assess, rehabilitate, restore, reclaim, and repair the damage done to human beings by the various mining rushes in the West—I have yet to hear of it. And by the "damage done to human beings" I mean a number of things: the tremendous displacement and relocation of Indian people because of mineral discoveries, the seizure of the property of and the exclusion from the mines of Mexicans and Chinese, and the multiple injuries done to the limbs and lungs and lives of miners who did the work that provided others with their fortunes. It would seem to me that someone—a space alien, or a Rip Van Win-



Quartz (or "hardrock") miners in a mining shaft, ca. late nineteenth century. The image of the gold-rush-era prospector and small-scale placer miner, "washing" the gold with pan and sluicibox, continues to dominate popular cultural mythology of western mining. In reality, within a few years of 1848, most mining in California and the wider West was corporate and most miners were industrial laborers, whose lives and opportunities varied little from those of the professional coal and iron miners of the eastern states. Nevertheless, prospector images continue to be used by special interest groups to prevent changes in public mining regulations, such as the 1872 Mining Act, which still serves as the basis of federal mining policy. *Courtesy Bancroft Library.*

kle sort—who looked at the United States on this Sesquicentennial would have to be *very* struck by the fact that attention and money are directed to the repair of injured nature, while a "what's done is done" sort of tone is directed at the injuries done to humans. Maybe there is an easy way of explaining this paradox. I suppose one could say that the sites of abandoned mines are still *in place*, there to be reckoned with, while the *people* of the past have died and been replaced by descendants who may or may not

have a direct involvement in the events of a previous century. Still, it is a very striking difference—to see our heightened sensitivities toward nature's hard times developing in such an opposite direction from our indifference toward the hard times of human beings.

Let me, in conclusion, turn to the question of the ways in which attitudes from the Gold Rush continue to shape the American West today. This used to be a lot clearer to me than it is today. I used to be, after

ll, the Continuity Kid, the one driven by a passion for asserting the ties that connected the nineteenth-century West and the twentieth-century West, and denying that supposed watershed of the end of the frontier. And so, in writing *The Legacy of Conquest*, I was apparently very comfortable with the idea of the continuity and persistence of attitudes, since *Legacy* is a sentence saying that the Gold Rush and the later mining rushes installed into westerners a persistent enthusiasm for extraction, a "get the resource and get out" attitude.

I'm not sure I buy that anymore. It seems to me now that, while the question of the persistence of attitudes generated by the Gold Rush is interesting enough, what is considerably more important, and consequential, is the fact that mining itself—the activity, not just the attitude—persists on such an enormous scale today.

Just as important, it seems to me now that the relationship—really, the *kinship*—that we sometimes claim with our historical predecessors and ancestors is really much more a matter of strategy and choice than it is a matter of direct and actual inheritance. The Gold Rush—and the way that its images get invoked to support and defend federal mining law—provides one of the world's best examples of this strategy, as the nostalgic, romanticized figure of the small miner, the individualistic prospector, the right of free access to gold established in California, gets put out to work on behalf of protecting the power and profits of enormous, international corporations.

We now have a situation in which the resources of the United States' public lands are being mined by many companies that are foreign corporations—Canadian and northern European. Thanks to the 1872 Mining Law, these companies do not contribute any revenue to the United States Treasury in return for these minerals from the public lands. Moreover, mining in the current mode, that is, open-pit, cyanide heap-leaching, requires millions of dollars to get started; it requires equipment of extraordinary scale and expense. This is not an enterprise for the little guy.

Consider, then, these two recent remarks from Wyoming's United States senators, speaking in opposition to reform of the Mining Law of 1872: Sen-

ator Malcolm Wallop: "[Reform of the law] would really hurt the small prospector, and believe me, there are a lot of them out there." Senator Alan Simpson: "This is not about money. We are defending our Western heritage." Which "Western heritage" did he have in mind? And how much of that heritage, as it was actually played out in the Gold Rush in California, is alive enough to justify its defense?

I conclude with a story from Dan DeQuille, that memorable and effective writer from Nevada's Comstock Lode. A veteran prospector in Virginia City, a man called Old Daniels, was often so drunk that he could not be sure whether he was dead or alive. Practical-joking friends, on one occasion, lifted the drunken old man and carried him to the graveyard, where they placed him next to a dug, but not filled, grave. When sunrise awoke Old Daniels, he considered his own situation, looked at the surrounding graves and gravestones, and drew the obvious conclusion: It is "the day of resurrection," he said, "and I'm the first son of a gun out of the ground."

The same could be said for western gold mining, very thoroughly buried and mourned in the mid-1980s and very much out of the ground now. As Frank Marryat wrote a century and a half ago in *Mountains and Molehills*, "Like a stone thrown in the water, the effects of a gold country spread from it in widening circles." In ways that do not seem to be grabbing current popular attention, the mining enterprise launched in California a century and a half ago continues to affect the American West. Whether the proper word for this impact is the "Shaping" of the American West, as the title of this paper puts it, or the "Shaking" of the American West, as I phrased it ten years ago, is a choice I leave for your contemplation.

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Although Mark Twain arrived in California fifteen years after the gold discovery, the humor and irony of his literary style has long been associated with the Gold Rush. This drawing by F. Strothmann of Jim Smiley shaking buckshot out of his famous frog first appeared in a 1903 edition of Twain's "The Celebrated Jumping Frog of Calaveras County." Twain's famous story, originally published in the *New York Saturday Press* in 1865, touched off his literary career and in the twentieth century inspired an annual re-creation of the jumping-frog contest in Angel's Camp. *From The Jumping Frog, Dover Publications, New York (1971).*

The Gold Rush: Consequences and Contingencies

by Richard White

Historical anniversaries and commemorations seem to demand hyperbole. Editorialists, writers, and speakers, who in soberer moments might exercise a certain caution in drawing causal connections between past events and present circumstances, act as if they are on historical holiday. The usual rules are suspended. No connection between the Gold Rush and contemporary California seems beyond consideration.

Since even in their quieter moments, Californians are not a people inclined toward understatement, it is not surprising that telling them that the Gold Rush was their common nativity and that 1998 represents their collective one-hundred-fiftieth birthday has opened a deep vein of credulity. It is as if "good natured and garrulous" Simon Wheeler, the narrator of Mark Twain's "Jumping Frog of Calaveras County," had somehow transported himself into the late twentieth century and found an audience credulous beyond his wildest dreams. In the story, a traveler asked Wheeler about the Reverend Leonidas W. Smiley and his connection to the Gold Rush, and Wheeler proceeded to tell them about a Jim Smiley and his famous frog. The audiences of the modern Wheelers have no curiosity about the Reverend Smiley's connection to the Gold Rush; they want to know about *their* connection to the Gold Rush. The modern Wheelers are happy to oblige. Most everything in California, or so it sometimes seems, is the product of the Gold Rush. The Gold Rush produced great wealth, and so the Silicon Valley is a direct descendant of the Gold Rush. By the same logic, since the Gold Rush produced high prices, the six-dollar beers in airport bars are a legacy of the Gold Rush.

But if all of modern California is the legacy of the Gold Rush, what are we going to do when the next anniversary, the next commemoration rolls around? What will be left to credit to the completion of the transcontinental railroad or World War II, to cite only two events that historians have thought, perhaps mistakenly, had a passing influence on the state. Most likely, the same editorialists and writers who attribute Silicon Valley and modern, diverse California to the Gold Rush will then just as happily attribute Silicon Valley and modern, diverse California to the transcontinental railroads or World War II.

If only to be perverse, I would like to suggest that, perhaps, we should be more careful about claiming legacies and consequences. Perhaps, modern Californians are not in any meaningful way the descendants of the Forty-niners. Perhaps, the Silicon Valley is not, even metaphorically, the equivalent of the Gold Rush. Most miners after all, used low technology, not high technology. They produced a simple basic product that they found in the ground. They did not produce a complicated and sophisticated product they thought up in their heads. Education gave a miner little advantage. I don't think that this is true for the computer specialists of Silicon Valley. The miners were people of the nineteenth century. Their values, expectations, and beliefs were very different from the people who inhabit the state today. We have connections with the past, but they are difficult and tangled connections. The past is another country.

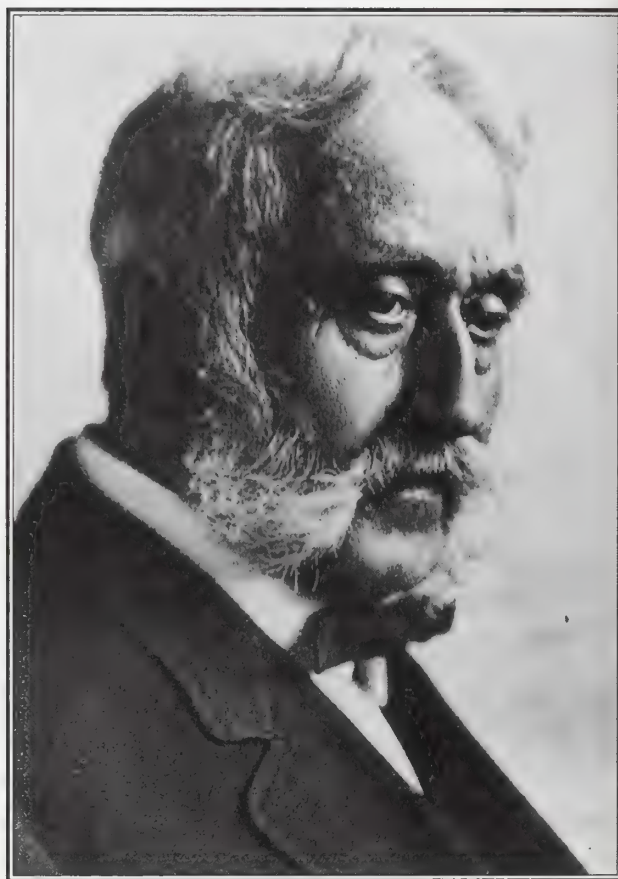
Don't get me wrong. I am not against public celebrations and the claims that public memory makes. I just want to distinguish such claims from those of

history. I would be the first to admit that academic history is not the only way to understand the past. I, for example, come from a family obsessed with the past. I have just finished a book about my mother, *Remembering Ahanagan*, and writing it has reminded me that my mother, my brothers, my sister, my aunts, and my uncles all mobilize, use, and claim the past. In one of those idiot insights that mark my own intellectual life, I realized that in a family obsessed with the past, I am the only historian. My attitudes, not theirs, are peculiar.

My attitudes are peculiar because academic historians look at the past in distinctive ways, and little of what I say will make much sense unless I explain this. When I think about the Gold Rush and question its consequences, I am making certain assumptions about history. I need to defend my skepticism.

I definitely think the Gold Rush had consequences, but the claims made for those consequences are all tangled up in what we think history is and with our own position in the present world. We are not the first ones to claim that certain consequences flowed from the Gold Rush. We can learn something about the difficulties of claiming legacies and consequences by realizing how different the consequences we now claim from the Gold Rush are from the consequences claimed one hundred years ago. One hundred years ago, two prominent nineteenth-century Californians, Henry George and Hubert Howe Bancroft, were both rather confident about the legacies of the Gold Rush. That one reached quite opposite conclusions from the other did not shake the confidence of either.

In the late nineteenth century, Hubert Howe Bancroft was the country's most successful historical entrepreneur. He was a man who quite literally made history pay, and history that pays is often not a particularly critical history. It tends to celebrate whatever values are ascendant at the moment. Bancroft was not a man to alienate potential subscribers. Kevin Starr lumps Bancroft in with a set of authors who concluded that the Gold Rush produced in California "a



Hubert Howe Bancroft (1832–1918) had at least one advantage over other late-nineteenth-century California historians—he had experienced the Gold Rush firsthand. Born in Ohio, he came to San Francisco in 1852 to test his luck at mining and to sell books. His book and stationery store expanded in the 1870s into a publishing house that cranked out thick, detailed histories of Mexico, Central America, and the western United States. Bancroft's immense personal library of 65,000 books and 100,000 newspapers pertaining to California history was acquired by the University of California in 1905 and, much expanded, is today located at its Berkeley campus. *Courtesy California State Library.*



Although the Treaty of Guadalupe Hidalgo guaranteed that the property of the Mexican residents of California (Californios) would be "inviolably respected," Americans and other immigrants—with governmental support—systematically overran and appropriated Californio lands. This gold-rush daguerreotype of a Hispanic woman is entitled "Spanish Woman," although her actual ancestry—Californio, Latin American immigrant, or actually Spanish—is uncertain. *Courtesy Oakland Museum of California, gift of Dr. Stanley B. Burns.*

permanent internationalization of flush times, an attitude of recklessness and swagger and competitive democracy." The Californian, they asserted, against their own evidence to the contrary, was merely the Forty-niner who stayed on. The Forty-niner became the Pioneer, who became the Capitalist, and all that was prosperous and modern about California was their legacy.¹

There is no doubt that this was one side of Bancroft. He, too, was not a man to hesitate when hyperbole beckoned. "The full and permanent effects of the California gold discovery cannot be estimated," he concluded. "All over the world impulse was given to industry, values changed and commerce, social economy, and finance were revolutionized. New enlightenment and new activities succeeded these changes, and yet again followed higher and broader developments . . . There had been nothing like it since the inpouring of gold and silver to Europe following the discovery of the New World by Columbus."²

For Bancroft the Gold Rush was a world event whose consequences were in one sense incalculable, but in another sense could pretty much be summed up as late nineteenth-century California. Bancroft was hardly enamored of everything that the Gold Rush brought to California. He saw greed, violence, and all kinds of baseness. He often saw, and only partially justified, genocidal violence against Indians and robbery of Californios. But Bancroft was sanguine. The Gold Rush had created the incredible mix of evil and good, and out of it later events had filtered what Bancroft regarded as the benign and progressive California of the late nineteenth century.

Bancroft is a handy example of one way of constructing consequences. Bancroft knew, of course, that California did not begin with the Gold Rush; he wrote a book about early California. But when he wrote about the Gold Rush, he acted as if, for all practical purposes, modern California began in 1848. Where we begin stories matters. History is not an origin story, and the Gold Rush is not some secular Book

of Genesis for the state of California. The Gold Rush occurred after some events and before others. It doesn't explain all that follows, but neither is it likely that it has nothing to do with what followed. The Gold Rush had consequences, but specifying those consequences—and not overplaying them—that is the trick.

To specify the Gold Rush's consequences, Bancroft created what amounts to an evolutionary history. Later events preserved good traits and eliminated bad, but the Gold Rush provided the basic genotype. How all this happened is never entirely clear. Bancroft often wrote as if Forty-niners remained in the state and bequeathed to those who never actually participated in the Gold Rush a set of attitudes supposedly typical of the event. The newcomers seemingly gladly accepted them. The fact that most Forty-niners went home and most Californians in the 1880s and 1890s had no experience with the Gold Rush is inconvenient, but not fatal. The Gold Rush could, for example, have set up institutions and structures that continued to shape events long after the Forty-niners departed. But in the long run, California's institutions pretty much mimicked larger American institutions, and such differences as did exist had more to do with Spanish and Mexican precedents than the Gold Rush.

In the actual history of California and the United States, both the genetic metaphors and the metaphors of legacy fail. A past event, or a set of past events, does not act as some sort of historical DNA passed on from generation to generation, producing the collective equivalent of hair or skin color or predisposition to cancer. The present does not in this sense develop inexorably from the past. Such a reading of the past as a genetic code has, ironically, the consequence of rendering most of what actually happened in the past utterly meaningless. Everything that happens between then and now becomes merely, as Bancroft had it, a filtering or refining of the original material.

Still, Bancroft's claims have an appeal, because

Bancroft's idea that the Gold Rush had consequences is deeply historical in the sense that modern historians understand history. Any assertion of a set of historical consequences springing from a particular event or set of events is inextricably attached to the basic historical idea of *contingency*. This sounds more complicated than I mean it to be. Contingency, in the sense that I am using it, simply means that something that happens is dependent on something else happening, and that the something else is neither inevitable nor even predictable. The old saying that begins "For want of a nail, a shoe was lost, for want of a shoe a horse was lost, for want of a horse a battle was lost . . .," and goes on until a whole kingdom has been lost, is an example of *contingency*. The movie *It's a Wonderful Life*, which revolves around the difference that the life of a single man (played by Jimmy Stewart) makes and how different his town would have been without him, is about contingency.

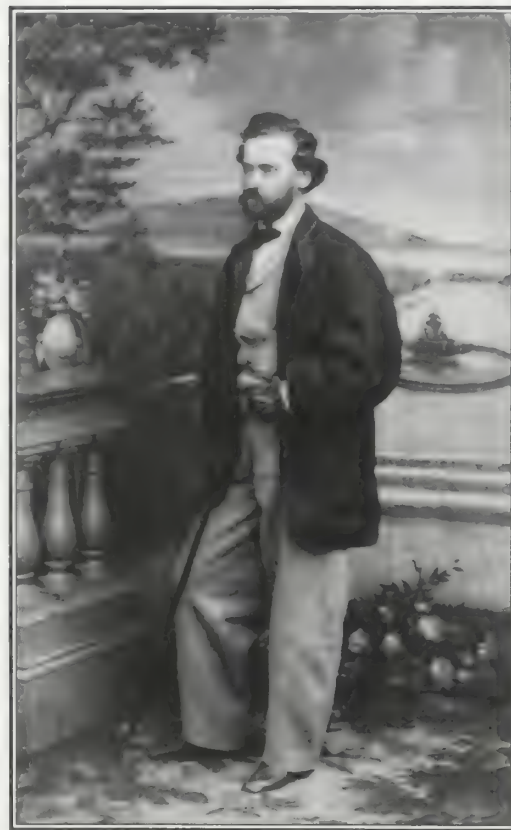
There are historical models in which contingency does *not* matter. If, for example, history is only the product of meta-forces that inevitably steer it in a certain direction, then particular events do not much matter except as signs of the forces at work. If a Hegelian spirit, or a Marxist class struggle, or a Christian God determines the eventual outcome, then events are merely epiphenomena with no important consequences of their own. Such teleological history cares about events only insofar as they are signs of the spirit or God's purpose or History with a capital H.

Contingency means that particular events matter. To say that the Gold Rush had important consequences is to say that some of the events that followed the Gold Rush would not have happened if the Gold Rush had not happened in the way that it did. The *consequences* of the Gold Rush were in the most obvious sense *contingent* on the Gold Rush happening.

As much as I hate to admit it, the flip side of the idea of historical contingency is counterfactual history. Counterfactual history is essentially "what if"

story. And "what if" history is in one sense not history at all. "What if" the Gold Rush had never happened? How would California be different? The obvious answer is, the Gold Rush *did* happen, and this is a silly question. The problem with this answer is that the same historians who give it—historians like me—are also likely to assert that the Gold Rush had consequences. But implicit in the statement that the Gold Rush had consequences is the idea that *if there had not been* a Gold Rush, those consequences could not have occurred. They depended on the Gold Rush. They were not inevitable. Such a view emphasizes that there were multiple possibilities in the past. The California Gold Rush and what followed are a set of realized possibilities. But things did not have to turn out the way that they did. And to say this, to admit unrealized possibilities, is to endorse counterfactual history, which, in a sense, only amounts to specifying those unrealized possibilities: what the town would have been like if Jimmy Stewart had jumped off the bridge. To talk about consequences is to enter counterfactual history through the back door rather than the front door.

Which brings me to Henry George, who entered counterfactual history through neither the front door or the back door, but rather a side door. For George, the important thing about the Gold Rush was *what did not happen*, or rather what started to happen, but stopped. Henry George was, in ways we too easily forget, America's foremost late-nineteenth-century social critic, and the society he knew best was California. California provides many of the key examples in George's best selling *Progress and Poverty*, and George, like Bancroft, saw the Gold Rush as containing multiple possibilities. For Bancroft, it was later history, acting suspiciously like a gold miner, that washed out the gravel and dirt and left the gold. But for George, the opposite happened. The best possibilities of the Gold Rush went unrealized. The "gold" was lost. The critical thing about the Gold Rush was the changes that did *not* flow out of it. The important thing was not how much it changed Cal-



Henry George (1839–1897), social critic and economist, came to California in 1857 and found work as a miner, printer, and itinerant newspaperman. He was one of the first and loudest opponents of railroad expansion, arguing that it "kills little towns and builds up great cities, and in the same way kills little businesses and builds up great ones." Shown here in a photograph made by a leading San Francisco photography studio, George moved to New York in 1880 just as his best seller *Progress and Poverty* propelled him to national fame. Photograph by Vance's Gallery, Bradley and Rulofson, Proprietors. California Historical Society, FN-21526.

ifornia and the nation and the world, but instead how little, after a promising start, it changed them. George can speak for himself:

The discovery of gold in California brought together in a new country men who had been used to look on land as the rightful subject of individual property, and of whom probably not one in a thousand had ever dreamed of drawing any distinction between property in land and property in anything else. But, for the first time in the history of the Anglo-Saxon race, these men were brought into contact with land from which gold could be obtained by the simple operation of washing it out.³

For George, the novelty of the case "broke through habitual ideas, and threw men back upon first principles, and it was by common consent declared that this gold-bearing land should remain common property, of which no one might take more than he could reasonably use, or hold for a longer time than he continued to use it. This perception of natural justice was acquiesced in by the General Government and the courts, and while placer mining remained of importance, no attempt was made to overrule this reversion to primitive ideas. . . . Thus no one was allowed to forestall or to lock up natural resources. Labor was acknowledged as the creator of wealth, was given a free field, and secured in its reward."⁴ For George, the Gold Rush, rather than being a celebration of laissez-faire capitalism, was a bullet aimed at its heart. It exalted labor over property and capital. This moment when private property in land was thrown into question was, for him, the moment of possibility. It revealed the injustice and harm of allowing largely unrestricted private property in land and allowing speculators to collect rent: the unearned increment when prices rose. But, George regretted, with "the decline of placer mining in California, the accustomed idea of private property finally prevailed in the passage of a law permitting the patenting of mineral lands." This was the infamous 1872 Mining Act.

Interestingly, recent scholarship has reinforced

the extent to which the gold-rush era in California represented a strong, and very serious, attack on the norms of Anglo-American property law. The Biddle Boggs case, which centered on access to minerals on John C. Frémont's Mariposa grant, was an attempt to put use before ownership. The powerful squatter's rights movement stressed rights to land that came through use and improvement rather than purchase or grant, and changes in statutes of limitations did impose some limits on property rights.⁵ But in any case, the moment was lost, and, for George, the most important consequence of the Gold Rush was its lost possibilities.⁶

George's legacy is in a sense counterfactual. It is the unrealized possibility of a realized event. But precisely because, in George's view, the Gold Rush only partially and temporarily diverted the American devotion to private property in land, the Gold Rush ceased to be a determinative event. By bringing in Americans, it simply speeded the imposition of the American land system over California. That system would have come anyway. It was that land system, rather than the Gold Rush, that ensured, as George argued in *Poverty and Progress*, that there would be poverty in the midst of riches. With or without the Gold Rush, the world would have been pretty much the same.

George and Bancroft stood in virtually the same place at the same time and assessed the consequences, the legacies, of the Gold Rush in an almost opposite manner. Bancroft was largely satisfied with Gilded Age California. He was willing to recognize evil and immorality in the past, but saw them as being progressively removed. He could see in the Gold Rush what he regarded as the best qualities of himself and his contemporaries, and he regarded the bad qualities of the Gold Rush as something that history itself gradually eliminated. George, critical of Gilded Age society and its growing disparities of wealth, saw the Gold Rush as a moment of white, male egalitarianism—and his major concern was with whites—whose best qualities were quickly lost.

It was an event that revealed other possibilities, but they remained lost possibilities. Today, historians see the Forty-niners as threatening less property law than the actual property of Californios and Indians, people who hardly figure in George's analysis. And contemporary Californians might see George's emphasis on the priority of human use in any claim on property as less liberation than as a threat to public lands, where natural processes are to some degree protected from the harshest consequences of human use. Times change; evaluations change.

We now stand a hundred and fifty years after the Gold Rush and more than a hundred years after George and Bancroft. Their legacies—whether some distinctive California personality type or the idea that Forty-niners' methods of distributing property rights provided a model for solving virtually all American social problems—seem more distant and dated than the Gold Rush itself. Legacies are time-bound. The traces of past events that we pick up and emphasize depend as much on our present concerns as on the event itself.

We see the limits of George's and Bancroft's assessments, but, of course, our own assessments of the consequences of the Gold Rush are as time-bound as Bancroft's and George's. Our only hope is in recognizing that we do not stand outside history when we make assessments of the past. We have no God's-eye view. We are fully within the very historical movement that we observe. Assessing the past must necessarily involve an assessment of our own modern condition and where we stand within it, but to be useful, it must do more than that. It must refine the nature of the claims that we make. We can never make our views complete, but we might make them less partial.

Thus I recognize that the things that strike me about the Gold Rush, the things I try to connect with in the modern United States, are as much a product of my own position within modern society as were the conclusions of Bancroft and George. I see the Gold Rush as a period of intense cultural and racial

contact. I see the Gold Rush as bringing capital—and with it power—to California in a way that gave it a head start over the rest of the West. I see the gold-rush as a laboratory of power and resistance as Anglo Americans carved out privileged access to gold. I see gold-rush California, thanks to Mac Rohrbough, as a place where the values of emerging capitalism and the values of what might be called a domestic, kin-based America clashed in ways that resonate down to the present. Such concerns are, however, not the only connections with the Gold Rush; they are only what to me are the most visible part of the spectrum in the late twentieth century. There is, admittedly, much more there.

My place in my society constrains my concerns. I can live with that. History is so broad and contains so many things that it needs some constraint. But that I am constrained in what I see does not mean that I can't find better and more sophisticated ways of establishing connections between the past and the present. I can hope for a more refined gauge of consequences.

If consequences are connected with contingency and contingency always assumes a counterfactual alternative, then we can begin to refine our thinking by looking closely at what it is that we make contingent when we emphasize the contingency of the Gold Rush. The interesting counterfactual question is not what if there were no gold in California. Eliminating the material fact of gold is silly and not very profitable. The interesting question is, what if the Gold Rush, *as an event*, had not taken place in a certain way at a certain time? What if, for example, gold had been discovered and exploited when California was still safely Mexican? What if, for example, gold had been discovered first in Colorado or Idaho or Alaska? Or what if another generation had passed before gold was discovered in California? What difference would this have made? How you phrase the question in many ways determines the answer.

Change the timing of the event, and other possibilities change. We need to remember that the timing



In the first months of the Gold Rush, it was not uncommon for Californios, Indians, Americans, and European immigrants to work side-by-side in the mines, as suggested in this daguerreotype of the Walter Taylor mine at Taylorsville, 1849. But increased competition, cultural differences, and the arrival of less tolerant people soon inflamed racial hostilities, leading to claim jumping, mob violence, and the eventual enactment of the Foreign Miners' Tax. *Courtesy Huntington Library.*

of the event not only enabled some things to happen but cut off other possibilities. If, for example, the Gold Rush had come a decade sooner, California would have been Mexican rather than American. California might have shared the fate of Texas—a lightly populated area of northern Mexico overrun by American immigrants. But if it had not, if Mexico had, for example, found a way to wed itself to the British fleet, the wealth that poured out of California might have fueled Mexican development. Proportionately, the wealth of California would have made a greater difference to Mexico than to the United States. John Coatsworth has given an indication of what the loss of the northern territories of Mexico and the development of mining in them meant to Mexican history. The wealth from mining alone that flowed out of California and the rest of the Mexican cession before 1900 exceeded the total Gross National Product of Mexico during that period.⁷ Seen from Mexico, the Gold Rush was only a sign of what might have been.

Timing, too, is critical in assessing what did happen in California. With or without the Gold Rush, California would have eventually attracted a large population. With or without the Gold Rush, Indian people would have been dispossessed, but perhaps not so brutally. With or without the Gold Rush, Californios would have been stripped of land, but perhaps not so thoroughly. We can guess this, because similar things happened elsewhere. With or without the Gold Rush, railroads would have reached California, and with or without the Gold Rush, these railroads would have monopolized vast tracts of land.

In their broad outlines all of these things and more would most likely have happened, but the critical question is: did their happening *at the time and in the way they did* make a difference? Clearly, in the short term, all of this made a huge difference. In terms of wealth, population, and political power, California was, for all practical purposes, the West between 1850 and 1880. San Francisco in 1880 held 233,959 people. All of Oregon, Washington, and Idaho added together contained a population of only 282,494. As late as

1900, one out of every five people living from the Rocky Mountains to the Pacific Coast lived in the San Francisco-Oakland area.⁸ This impact extended beyond the West. Let's take as an easy example the consequences of the Gold Rush for American power in the Pacific. Did the Gold Rush begin American penetration into the Pacific? No. There was an American presence prior to the Gold Rush. Did the Gold Rush have consequences there? There is strong evidence that it did. Jean Heffer in his recent *L'États Unis et Le Pacifique* speaks of the golden age of the American merchant marine in the Pacific. He argues that although the amount of American commerce in the Pacific increased greatly in the early nineteenth century, the commerce remained marginal until the discovery of gold in California. In the 1850s the commerce rose to represent roughly 10 percent of the ships entering and leaving American ports. At the beginning of the century, all American ships in the Pacific departed from the Northeastern ports and returned there. All this changed in the Gold Rush. In 1856, the first year for which there are statistics on San Francisco, Pacific commerce accounted for nearly half of the entering ships and three-quarters of the departures. It made Panama the principle zone of transit between the East and West coasts. With San Francisco, the United States gained an entrepôt on the Pacific that gave it a great advantage over America's European rivals.⁹

Thirty years and more after the Gold Rush, its consequences remained clear in the boost it gave California, but it is possible to imagine consequences as something that ripple out from an event into some pond of time and grow fainter and fainter as one draws away from the site of the event. The consequences of the Gold Rush grew less clear, and the lines of causality between a modern event or situation and an event in the past became more and more complicated. As they extended deeper into time, the consequences of the Gold Rush intersected with other events. Advantages given by the Gold Rush that seemed insurmountable in the late nineteenth

century were, in fact, surmounted. San Francisco's hegemony over the Pacific, for example, hardly seems evident in the 1990s.

The advantages that the Gold Rush bestowed could dwindle unless supplemented by other developments. Does the Gold Rush make a difference in establishing California as, as I have asserted in other places, the capital of the West? Again, we have to specify the time in question. Certainly, in the short run it did. The Gold Rush not only created capital, it did so in a place distant from existing concentrations of capital and where ownership of existing resources was originally largely by non-whites and was thus open to violent seizure. In the words of the geographer Richard Walker, "California comes into modern history shining with promise and dripping with blood."¹⁰ The creation of capital, and also technological knowledge associated with mining, allowed California, alone among western states, to have within it men who could finance large enterprises and men who had the technological skills to run them. That capital allowed much of the wealth from Nevada's mines to flow into California; the knowledge allowed California to export its mining engineers. Californians controlled transcontinental railroads—first the Central Pacific and then the Southern Pacific. The Gold Rush created wealth that allowed California, alone among western states, to be a source of capital for commodity production elsewhere in the West. California gold translated into control of Washington timber and Hawaiian sugar.¹¹ I could go on.

Similarly, the Gold Rush, by creating the first urban markets in the West, allowed Californians to shape production elsewhere in the West because San Francisco became the West's most lucrative market. And the access to capital, and the size of that market, allowed California to develop the West's only significant non-extractive manufacturing center.¹²

Again, I could go on and on, but we need to be careful. These events had consequences, but the conse-

quences had limits. They become entangled with other events. California capital was important in developing the West, but less important as time went on than European and eastern capital. Even midwestern capitalists could cut into what had been sectors dominated by California since the Gold Rush. Two St. Paul neighbors, Frederick Weyerhaeuser and James J. Hill, could cut deeply into the California pie. By the early twentieth century it was midwestern timber barons who displaced California producers in that industry. Hill's and E. H. Harriman's railroad operations, not those centered in California, dominated much of the West. And in any case, J.P. Morgan's New York dominated all of them. The Gold Rush gave California a valuable advantage, but by the twentieth century that advantage was dissipating.

By 1910, California's population, after the doldrums of the 1890s, had resumed its rapid growth, but the state was growing less rapidly than the rest of the Pacific Coast. In 1890, for example, the Pacific Northwest's population was only 63 percent of that of California alone, but by 1910 the Pacific Northwest had nearly as many people—90 percent—as California. And, even more critically, California no longer was synonymous with San Francisco. Los Angeles, which owed little to the Gold Rush, was outstripping the Bay Area. The Gold Rush had given California a good run, but it was nearing its end. This hardly means that there weren't lingering advantages to California's gold-rush head start or that California's power dissipated. It only means that historical explanations of California's success become far more complicated than the Gold Rush.¹³

The most easily traced consequences today—pollution from old mine sites, the location and small size of Indian reservations—are largely negative. The many positive aspects of modern California do not trace so easily back to the Gold Rush.

As the twentieth century wore on, what had once seemed a thick rope of consequences anchored in the Gold Rush had become a mere thread, and that thread was intertwined with many others. The Gold



This 1849 daguerreotype, showing a hodge-podge of recently erected housing, including canvas tents, looks east from today's downtown San Francisco toward a waterfront clogged with abandoned vessels. *California Historical Society, FN-1311.*

Rush retained its importance, but that importance was more and more metaphorical. Here, it is simplest to quote Kevin Starr:

California would never lose this symbolic connection with an intensified pursuit of human happiness. As a hope in defiance of facts, as a longing which could ennoble and encourage but which could also turn and devour itself, the symbolic value of California endured—a legacy of the Gold Rush.¹⁴

I would advise patience before you buy all the claims proffered for the Gold Rush's legacy. At the very least wait until the next centennial or bicentennial or sesquicentennial of a famous California event comes along. My guess is that most of the legacies now so cavalierly claimed for the Gold Rush will then be claimed for, let's say, the completion of the transcontinental railroad. Speakers at celebrations are quick to claim connections between their audience's lives and distant and heroic events. It may be the point of the celebration; it may be how public memory connects us to the past. It is an important use of the past, but it is often poor history. CHS

Historian Richard White will join the history faculty at Stanford University beginning in the fall of 1998. His latest book is *Remembering Ahanagran* (1998).

NOTES

1. Kevin Starr, *Americans and the California Dream, 1850-1915* (New York: Oxford University Press, 1973), 50.
2. Hubert Howe Bancroft, *The Works of Hubert Howe Bancroft: History of California*, v. 6, 1848-59 (San Francisco: The History Company, 1888), 23: 110.
3. Henry George, *Progress and Poverty, The Remedy: An Inquiry Into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth* (New York: Robert Schalkenbach Foundation, 1942), 385-86.
4. *Ibid.*, 386.
5. Donald J. Pisani, "Squatter Law in California, 1850-58," *Western Historical Quarterly* 24 (Autumn 1994): 277-310, particularly 304; see also Paul Kens, *Justice Stephen Field: Shaping Justice from the Gold Rush to the Gilded Age* (Lawrence: University of Kansas Press, 1997), 55-69, 80-92.
6. George, *Progress and Poverty*, 386-87.
7. John Coatsworth, "Obstacles to Economic Growth in Nineteenth Century Mexico," *American Historical Review* 83 (Feb. 1978): 97.
8. Richard Walker, "Another Round of Globalization in San Francisco," *Urban Geography* 17 (1996): 64.
9. Jean Heffer, *Les États-Unis et le Pacifique: Histoire d'une frontière* (Paris: Editions Albin Michel, 1995), 54-55.
10. Walker, "Another Round," 61.
11. *Ibid.*, 65.
12. William Issel and Robert W. Cherny, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (Berkeley and Los Angeles: University of California Press, 1986), 24-25.
13. Walker, "Another Round," 60-94.
14. Starr, *Americans and the California Dream*, 68.



"Temporary and Permanent Bridge, Green River [Wyoming], Citadel Rock in Distance," ca. 1868, by Andrew J. Russell, company photographer for the Union Pacific Railroad. This famous photograph is considered one of the great visual artifacts of the building of the first transcontinental railroad, which, like the Gold Rush, also transformed California and the American West. Courtesy Oakland Museum of California, Andrew J. Russell Collection.



Yosemite Valley [El Capitan and Bridalveil Fall], by Thomas Hill, n.d. Like the gold-rush pioneers seeking instant riches, artists were captivated by the "California Dream." More often than not, for early painters that dream lay in depicting the state's spectacular, beautiful, and—at least on the surface—benevolent nature. The Sierra (particularly Yosemite), Mt. Shasta, and other unique landmarks especially captivated early painters such as Hill, Albert Bierstadt, and William Hahn, as well as pioneer landscape photographers such as Carleton E. Watkins and Eadweard Muybridge. *Courtesy Oakland Museum of California. Bequest of Cecil E. Nixon.*

The Gold Rush and the California Dream

by Kevin Starr

Like every other important historic event, the Gold Rush has been—and will continue to be—interpreted from the vantage point of the present. As early as August 1850, with the founding of the Society of California Pioneers in San Francisco, the Gold Rush, then in its full tide, was already being seen as a watershed event. The society was founded to collect and preserve information connected with the early settlement and conquest of the country, and to perpetuate the memory of those whose sagacity, enterprise, and love of independence induced them to settle in the wilderness and become the germ of the new State. That new state, of course, had not yet been admitted to the Union—it would take another month—but that did not bother the Pioneers. History was as much a matter of anticipation as accomplishment. Since the Gold Rush, a certain speed-up had characterized events. "California," said the *Annals of San Francisco* in 1855, "was a hotbed that brought humanity to a rapid, monstrous maturity, like the mammoth vegetables for which it is so celebrated."

The Pioneers, in short, were already seeing that there was a time before the Gold Rush in California—and a time after; and that the time after was radically different from the time before. A mere two years into the Gold Rush, nearly three years if we count the indigenous Gold Rush of 1848, it was already apparent that a new social order had been brought into being.

Fifteen years later, in the gold-rush settlement of Grass Valley, a ten-year-old boy, Josiah Royce, born

in Grass Valley in 1855 to English-born parents who had migrated overland in mid-1849 by ox-drawn prairie schooner, was already experiencing the Gold Rush as ancient history, as the founding time. "A child born in one of our far western settlements," the Grass Valley boy—now remembered as the Harvard philosopher and historian—would later write, "grows up amid a community that is a few years older than himself, and not as old as his eldest brother. Yet he shall look upon all these rickety wooden houses, and half-graded streets, full of rubbish, as the outcome of an immense past; he shall hear of the settlement of the town as he hears of ancient history, and he shall reverence the oldest deserted, weather-beaten rotting log-cabin of the place, with its mud chimney crumbling to dust, quite as much as a modern Athenian child may reverence the ruins of the Parthenon." As a boy, then, Josiah Royce was already very much aware of both the solidity and the burden of the past. "My earliest recollections," he later remembered of Grass Valley, at a sixtieth birthday gathering in his honor at the Walton Hotel in Philadelphia on December 29, 1915, "include a very frequent wonder as to what my elders meant when they said that this was a new community. I frequently looked at the vestiges left by the former diggings of miners, saw that many pine logs were rotten, and that a miner's grave was to be found in a lonely place not far from my own house."

For both the members of the Society of California Pioneers, then, meeting in San Francisco in August 1850, and the experience of the ten-year-old boy hik-

ing among the abandoned diggings fifteen years later, the Gold Rush possessed the solid weight of history from the very beginning. It was condensed time, if you will, or time—like the matter/time drawn into a dark star—in which days seemed like years and months like decades. One hundred fifty years later, the Gold Rush still remains that dark star, that collapsed supernova, at the origins of the history of American California. Stay properly distanced from it, and it possesses the weight of epic. The closer we move toward it, however, the more complex become the patterns. And if we come too close to any single event—and we must do so if we are to be true to history—we run the risk of falling into the dark star, and hence finding ourselves never capable of returning to a present-tense affirmation of the total past, even its tragic dimensions.

These are the risks we run in deconstructing history, for whatever motivation. In absolute moral terms, the loss of one single Indian child, much less the near-total destruction of an entire people, is not worth an affirming view of the Gold Rush. In absolute terms, the destruction of the environment was not worth the gold taken from it. And yet, what are we to do? Are we to say that the Gold Rush was nothing because of its devastating impact on Native Americans? Are we to say that the Gold Rush was nothing because it treated California, as Bayard Taylor put it, like a princess whom bandits had captured, cutting off her hands merely to take the rings from her fingers?

The problem with deconstructing history is the difficulty in reconstructing it: in finding a totality, including its tragic dimensions, and affirming it as the founding time. So much of the new interpretations of the Gold Rush are so welcomed. For those who commemorated the fiftieth anniversary of the Gold Rush, for example, even the one-hundredth anniversary, it seemed such an Anglo-American event. One hundred fifty years later, because of who we are today in California, we see the Gold Rush as an intrinsically international event, albeit dominated by Anglo-America. In 1898 and 1948, we saw it as almost exclusively masculine. Today, we are astonished by the presence of women in the Gold Rush story, whether in California or, as J. S. Holliday so eloquently points out, as the living embodiment—

in memory and in letters—of home, love, nurture, and responsibility.

The devastating effects of the Gold Rush on Native America, together with an acknowledgement of the environmental damage that was wrought, have only surfaced in full force over the past twenty-five years or so, with the rise of the new history. In these two dimensions—a human and an environmental catastrophe—we have presented ourselves with near-intractable insights because, as I have suggested, we have entered history from the perspective of moral absolutes. As I previously stated, not the life of one Indian child was worth the Gold Rush.

But where do we go from here? Would it be better that the Gold Rush never happened? Is that what we are saying? Is that what we are saying when we contemplate the tragic dimensions of experience? Would it have been better that there be no California? That we not be here? Which is to say that America not be here? And if we say that, then we must say that before us, it would have been better had Mexico not been here, and before Mexico it would have been better that Spain not have been here.

Yet to contemplate such possibilities—and they are implicit when we judge history from the perspective of moral absolutes—is to force ourselves to roll back the carpet of history even farther: that it would have been better that there would have been no European contact whatsoever (and many were saying this during the five-hundredth anniversary of the landing of Columbus). Yet the minute we say this, of course, we are indulging in a daydream: a pastoral idyll of Native American civilization that is, at its core, intellectually dishonest and de-humanizing to Native America itself. Native Americans, after all, were not Arcadian figures. They were complete men and women living in history. They created empires—the Inca, the Mayan, the Aztec, the Iroquois League—comparable to the Assyrians and Hittites of ancient times, or the Crusader Kingdoms of the Middle Ages. Among the millions of men and women to have lived their lives in purely Native American circumstances, there were gifted artists and ordinary artisans, wise counselors and fools, saints and sinners, good men and bad.

We cannot, I believe, roll back history until we come to an Arcadian Indian past. It just isn't there.

Ishi, the last of the Yahi, photograph taken, probably in San Francisco, between 1911 and 1916. The man who came to be known as Ishi was born of the Yahi tribe in the mid-nineteenth century. Living in the isolated foothill and mountain area south of Mt. Lassen, the small tribe was beset by all the tragedies native peoples suffered in the wake of the gold-rush boom. Overland travelers and miners attacked and killed many of their people, stole their land and resources, infected them with deadly diseases, and destroyed their kinship, society, and culture. Though by the 1870s the Yahi were assumed to be extinct, actually a remnant, including Ishi's family and a few others, had gone into hiding in the wilderness. By the early 1900s, only Ishi survived, the last of the Yahi and perhaps the last California Indian to lead the native, pre-conquest life. In 1911, isolated and fearful, the middle-aged man, who refused to reveal his true name, wandered into an outpost near Oroville, in effect throwing himself on the mercy of his lifelong tormentors. Anthropologist Alfred L. Kroeber of the University of California named him "Ishi"—"man" in Yahi language—brought him to Berkeley, and took him to the university's anthropology museum in San Francisco. Remaining there until his death in 1916, Ishi not only taught the anthropologists the skills, customs, language, and arts of the Yahi, but he also adapted remarkably well and quickly to modern American culture. He learned English, supported himself by working as a janitor at the museum, opened a bank account, readily took to using modern tools, and became an avid fan of riding streetcars and movies and attending the opera. Ishi's experience of cultural translation led many scholars of that era to begin to question the currently fashionable belief that Indians and other so-called "primitive" people were genetically inferior. Alfred L. Kroeber's wife, anthropologist and author Theodora Kroeber, has produced several classic books about Ishi, who was certainly among the most remarkable of all Californians. *Photograph courtesy Heyday Books, Berkeley.*



I must admit, however, that here in California so many Native American peoples achieved a balance and a dignity, a spirituality and a non-aggressiveness, a harmony with their environment without and their environment within, that I find it especially appealing that they were the first Californians. We can never forget them—even the horrible things we did to them. In the twenty-first century, their sensibilities, recovered through scholarship and California peoples living together, will be more and more relevant to the way we view the universe. From this perspective, it is my personal opinion that Ishi is the

single greatest Californian I have ever encountered in my thirty-plus years of research.

Aside from a legitimate deconstruction or revision of older mythic formulations, showcasing the tragic aspects of the Gold Rush past also has benefit as a way of galvanizing corrective action in the present. It is perfectly legitimate, and very understandable, for example, to underscore how Native Americans were treated in 1849, 1850, 1851, and later, so as to energize efforts to correct maltreatment in the present. It is totally legitimate, furthermore, to cite the environmental damage of the Gold Rush as a way

of intensifying efforts to preserve the present-tense environment of California.

The minute we do this, in fact, we re-connect with our deconstructed past. True, the mythic formulations of 1898 and 1948 are no longer relevant. But we have re-connected with living history the way that the ten-year-old boy Josiah Royce connected with living history in his rambles through the mining regions: the way that the Society of California Pioneers felt the presence of living history in their own time.

Here, then, is a paradox. Even the most astute deconstruction of Gold Rush history, even the most searing indictment of its tragic consequences, does not provide us with an Archimedean point on which we can lever ourselves out of the past. The Gold Rush is not something back there in time. The Gold Rush is everywhere around us, even in its tragic consequences. The Gold Rush is who we are as a people.

Thirty years ago, I read as many Gold Rush diaries, journals, letters, and other narratives as I could lay my hands on at the Weidner Library at Harvard. I saw the Gold Rush then as a mixed epic, at once an *Iliad* and an *Odyssey*. It was an *Iliad* in that it was a cruel foreign war, a saga of communal ambition and collective misbehavior, a poem of expatriation, hostile gods, and betrayal. It was an *Odyssey* in that it was a wandering away from home, a saga of resourcefulness, a poem, of sea, earth, loyalty, and return. For a few brief years, in far-off California, the bottom fell out of the nineteenth century. Americans—and not just Americans of the frontier—returned en masse to primitive and brutal conditions, to a Homeric world of journeys, shipwreck, labor, treasure, killing, and chieftainship.

There was a gaudy freedom to California. "The very air" of San Francisco, wrote Bayard Taylor in 1849, "is pregnant with the magnetism of bold, spirited, unwearied action, and he who but ventures into the outer circle of the whirlpool, is spinning ere he has time for thought, in its dizzy vortex." At the Parker House or the El Dorado in San Francisco, women dealt the cards, a brass band or banjo music played, and gold nuggets were piled high on the tables. One could take a brandy-smash at the bar, then stroll the crowded streets, rakish in hussar boots, corduroy pants, sash, red-flannel shirt, and sombrero. Daguerreotypists did a good business in

portraits of young men in miners' dress. Many of these portraits are in the exhibition mounted by the Oakland Museum. J. Douglas Borthwick, an English artist sensitive to social distinctions, noted that it was the gentlemen who insisted on posing in the most picturesque attire.

If there were quarrels, there was also a new intensity to companionship, as men took each other's measure under difficult conditions. "There is more intelligence and generous good feeling than in any country I ever saw," wrote J. D. B. Stillman. "Men are valued for what they are."

William Perkins, another gold-rush writer, met a former dandy who on the East Coast had resorted to padded clothing, hair dye, make-up, and a dental device for filling out the cheeks. In California, he discarded all of this, delighted to find himself a gray-haired, hale and hearty man of middle age. "Thanks to California," the former dandy told Perkins, "I have broken my chains; I am 52 this year and I don't care who knows it!"

Under stress, men came to moral insight, as well as to violence. Indians stole Charles Pancoast's supplies, upon which he depended for his life. "A few days after this," Pancoast wrote in his journal, "as I was walking up the shady path beside the river, I discerned three Indians sitting in the bushes on the opposite side. I raised my rifle to shoot at them, when the thought came to me that I should be taking the life of a human being without necessity or adding to my own security, and I should perhaps regret the murder. I dropped my aim, and I have ever since rejoiced that I did not pull the trigger of my rifle that day."

It was this human dimension, then, that most intrigued me thirty years ago. Today, as I have tried to suggest, I, along with everyone else, am struggling with the tragic dimensions of the gold-rush past: the miners who did not drop their rifles like Charles Pancoast did, but murderously fired.

Two categories, two insights, one old and one new—*sin* and *DNA*—have provided me with avenues of analysis that, I believe, go beyond my earlier *Iliad* and *Odyssey* metaphors. First of all, let's consider *sin*. As Patty Limerick suggested during her KQED FM-radio panel show on the Friday before the Oakland Museum's Gold Rush exhibitions opened, human beings do bad things. They always have and

they always will. The Judeo-Christian tradition describes this proclivity as a capacity for sin. Certainly, the Forty-niners sinned against the Native Americans. As the Pancoast quote suggests, these were not generic sins, or sociological processes, they were individual acts, and taken together they constitute a grave burden on the present because these sins are now a part of our living history. And yet the moment we mention sin, we must also mention repentance, atonement, reconciliation, healing, and forgiveness: categories I would like to return to after I discuss DNA.

In the Gold Rush we can first and most completely glimpse the double helix, the DNA code, of American California. It is not so much a question of cause and effect, although cause and effect are operative, but it is of an identity, a double helix of genetic traits that were established during the Gold Rush and that return structure recurring patterns in the California experience.

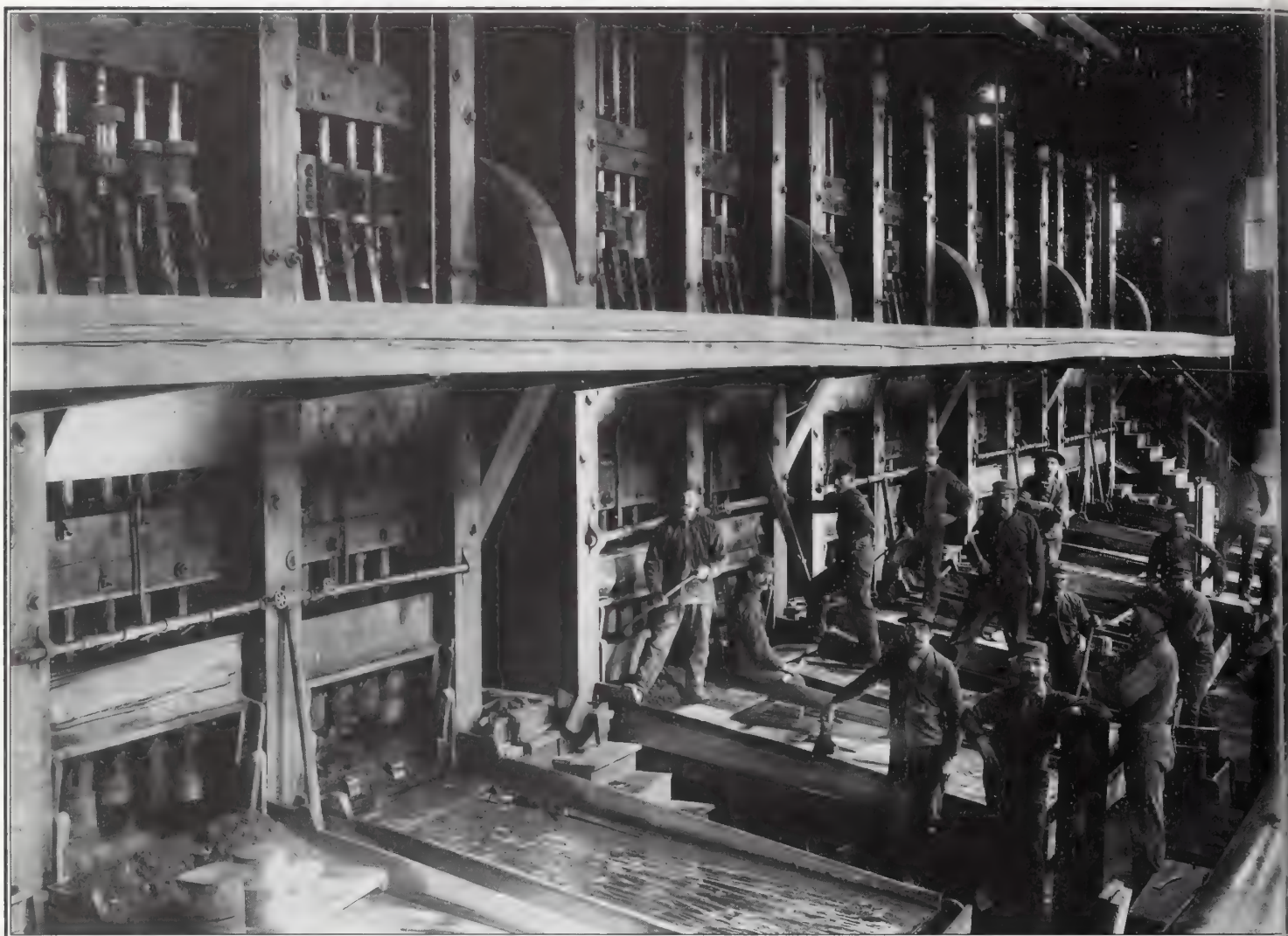
Take the question of technology. The Gold Rush was an epic of technology as Americans re-discovered and/or re-invented the technology of mining: from the single pan to the long tom, from the long tom to the sluice, from the sluice to the diversion of entire rivers, to the even more ferocious technology of hydraulic and hard-rock mining. Each successive stage of technological development, as Josiah Royce pointed out more than one hundred years ago, resulted in more complex social states. It took a solitary individual to pan for gold. It took two to rock a long tom. It took half a dozen to build a sluice. It could take a hundred or more to divert a river. It could take hundreds and hundreds to sink deep shafts into the rock or wash away entire mountains through hydraulic assault.

That same technology of mining, moreover, the use of technology to rearrange land and water, morphed quite smoothly into the technology of agriculture, which grew up alongside mining in the Bay Area in the early 1850s, then spread north into the Sacramento Valley, like the Gold Rush itself. That same technology of land and water was the technology of irrigation in the 1880s and 1890s that redeemed the Central Valley, and later, the Imperial Valley, from semi-arid or desert conditions. That same technology, now transformed into aqueduct technology—

but it was still the movement of water and land—was the means by which California urbanized itself in the Owens Valley and Hetch Hetchy projects in the early 1900s.

Then there is the question of the boom, the "rapid monstrous maturity," as the *Annals of San Francisco* put it. A population of 12,000 non-Native Americans boomed by 300,000 in a few short years. As in the case of technology, the DNA code was established; the trait persists. Again and again, California would develop by booms. A boom was expected after the completion of the railroad in 1869, but it took another fifteen years to develop, coming to Southern California after the arrival of the Atcheson, Topeka & Santa Fe in 1884. Between 1914 and 1924, 3.5 million poured into California, mostly to the south. In the midst of the Great Depression, another 1.5 million, maybe more, poured in from the embattled Dust Bowl states. Between 1939 and the aftermath of the Second World War, another six to seven million poured in. By 1962, the population rose from 9 million to 22 million.

Technology and booms—and an intrinsic internationalism, a diversity that is also a fixed gene on the double helix of California. In this regard, the trait goes back to Native California itself, which was a polyglot diversity of more than two hundred language groups and almost as many different ways of living. Thanks to the Gold Rush, American California was polyglot and multilingual from the first, an amalgam of Native American, Latin American, European American, African American, and Asian American strains. Although the relationships among these groups was frequently contentious, exploitative, and tragic, nevertheless the pattern was there. California would never belong to any one people. Its unity, ultimately, came from its constitution and the American Constitution, the integration of its economy, and the binding effects of its public works—water and transport systems especially. But it would never be the dominance of any one group. Even though European Americans possessed great power for one hundred years, they would eventually have to share control with the more varied mosaic of peoples and cultures who were here in the Gold Rush, who were here, indeed, before the Gold Rush, and had established themselves as the fundamental DNA code of California as a society.



At ever-larger and more complex stamp mills, quartz from large, deeply tunneled hardrock mines was pulverized. From the resulting fine mixture, microscopic grains of gold were harvested using a combination of mechanical and chemical processes. By the late 1850s, California's insatiable need for mining machinery had given rise to one of the most important and profitable iron smelting, casting, and machine-shop industries in the United States, mostly centered in San Francisco. Into the early twentieth century, the city supplied mining machinery to the rest of the West, particularly the Comstock Lode of western Nevada, as well as gold and silver mining districts world wide. Some of the same iron businesses diversified into manufacturing heavy-duty machinery for agriculture, railroads, water development, and other important industries that revolutionized the state and western region after the Gold Rush. *Courtesy Huntington Library.*

The social and psychological dimensions of the DNA code established by the Gold Rush are equally fascinating. As has been stated so many times during this symposium, the Gold Rush was an epic of entrepreneurship, and the entrepreneurial habit remained a fixed component of the California identity, right down to the current Gold Rush in Silicon Valley. Today, in the California economy, smaller entrepreneurial start-ups, whether in high-tech, man-

ufacturing, or service industries, so many of them run by immigrants, have largely accounted for the recharging of the California economic engine after the state, forced to go off defense-department steroids in the early 1990s, went into job-loss and economic free-fall. Once again, revitalization happened overnight, as in the case of the Gold Rush itself. Remember back just a few short years: to 1992, 1993, 1994. Upwards of seven hundred thousand jobs had



A contemporary artist depicted an attack on Chilean immigrants by the "Hounds," self-styled American defenders of "law and order" in early San Francisco. Under the cloak of civic duty, however, the hoodlums practiced harassment and brutality toward Spanish-speaking residents, most spectacularly in a July 15, 1851, fatal assault on San Francisco's tent-city of Chilean immigrants. Among the victims were women and children. The incident, indicative of the free-wheeling violence that terrorized the city, led to San Francisco's first organized vigilante movement, the famous Vigilance Committee of 1851. Inter-ethnic tension and violence, along with some cooperation, were major themes of early California society that persisted into the modern era. *Courtesy Bancroft Library.*

migrated out from the state, the great majority of them unconnected with defense. State government was facing a \$12-billion shortfall and across two summers was paying its bills in IOUs. The national media was predicting the end of the California Dream. Then suddenly came this new Gold Rush: in this instance, a return forward to California's pre-defense economic formula, which re-assembled the persistent economic DNA code of the state, blending agriculture, tech-

nology (in this case high technology), manufacturing, tourism, and service industries (such as hotels) attached to tourism and travel, and a post-Gold Rush addition to the California DNA code, made in the earlier 1900s: film, later radio and records, later television, later entertainment conglomerates, which were linked to press power as early as the purchase by William Randolph Hearst of Cosmopolitan Pictures as a vehicle for Marion Davies.

Speaking of Marion Davies, the Gold Rush also put at the core of the California DNA code a certain liberation of women that is one of the continuities of our state history. I'm thinking here, of course, of the women of the Gold Rush, whom we now understand so much better, thanks to the past twenty years of scholarship. Indeed, in my opinion, Louise Amelia Knapp Smith Clappe, who wrote under the nom de plume Dame Shirley, has to be considered one of the founders of this state in that her *Letters* represent one of the first patternings of the imaginative materials of social experience in California. It was Dame Shirley—not exclusively, but so effectively and so early—who formulated for us such enduring questions as the effect of the Gold Rush on minorities, Native Americans and Mexican Californians alike; the contribution of the Chinese to the building of the state; the struggle for social order in the mines (a theme taken up in later years by Millicent Shinn and Sarah Royce); and the role played by California in probing and defining the nature of American civilization itself. But I am thinking as well of the young women who were either born in California or came here during the Gold Rush and after: women such as Gertrude Horn, later Gertrude Atherton, who, as she tells us in her marvelous autobiography *Adventures of a Novelist*, while a young girl in Sacramento, was placed atop the table at one of her father's undoubtedly bibulous dinner parties and encouraged to kick soup plates, still full of soup, into the laps of her father's roaring male guests. A young woman treated such as this in her childhood would never, I suppose, have a problem in later life thinking of herself as a special person and certainly this is true of Gertrude Atherton. Since there were so few young women during the Gold Rush and after, they were simultaneously cherished (please see Nahl's portrait of *Little Miss San Francisco* in the Oakland Museum) and also expected to play a man's part in society (please consult the character Minnie in David Belasco's *Girl of the Golden West*, the basis for Puccini's *Fanchulla della West*, which I consider the single greatest work of art to deal with the Gold Rush, despite the fact that Puccini got no closer to California than New York City). From this perspective, taking the analogy of the DNA code, one can move from these Gold Rush women to the entrepreneurs of the Gold

Rush itself, to the ranching women of the 1870s and 1880s, to Gertrude Atherton and her fellow San Franciscan Sybil Sanderson, later prima diva of the Paris Opera, to the San Francisco-born and Oakland-raised Isadora Duncan, such an important figure in the history of American feminism, to the very fact that we have today two women United States senators and a growing domination of our state and local politics by women elected officials.

Once again, of course, in this instance—as in every other aspect of the Gold Rush—this affirmable legacy runs parallel with our growing sense of Chinese, Indian, and Mexican women forced into prostitution, of abandoned wives in the older states, and abused wives in the gold towns. But as in the other cases as well, we ask ourselves: does the failure preclude our affirming the success? Does the sin preclude atonement?

The Gold Rush also fixed forever another persistent trait in the California DNA code, the Asia/Pacific identity of California, past, present, and future. In this case, the California Gold Rush only accelerated an already developing relationship, which can be traced through the Pacific trade of the Boston-based firm of Bryant & Sturgis, the treaty with China signed in Macao by Caleb Cushing on behalf of the United States in the 1840s, and the very Pacific-drive of Manifest Destiny itself. Yet without the Gold Rush, other events might not have happened so precipitously. In a letter Commodore Perry presented to the Japanese government in the summer of 1853, President Fillmore made explicit reference to the fact that the granting of statehood to California had made the United States of America once and for all a Pacific nation. For the next one hundred forty-plus years, California served as a channel for Pacific Basin awareness into American thought and aesthetic practice. Here is the state, after all, that established regular steamship service to Yokohama by the early 1860s, where such intellectuals as Benjamin Park Avery and Anson Burlingame did pioneering work in formulating a social, cultural, and diplomatic body of commentary regarding the Pacific Basin destiny of the United States, where Japanese architecture and landscaping exercised such a powerful influence at the turn of the century (such as in the emergence of Gumps in San Francisco, the development of the Zen garden in southern Califor-



Widowed at the age of thirty, Gertrude (Franklin) Atherton (1857–1948), shown in a photograph taken ca. 1904, became a prolific writer of sensational novels whose themes often reflected her interest in Spanish California and her personal rebellion against conventional roles for women. *Courtesy of Stanford University Press and the California Historical Society Library.*

nia, and the paintings of Theodore Wores), where the Japan Society of America was founded in San Mateo in the early 1900s, and, most important, where the Chinese, and later the Japanese, played such a shaping role in the emergence of the state. The crossing of the Sierra Nevada by rail, after all, ranks alongside the Great Wall of China itself as an epic of Chinese engi-

neering and labor achievement: this followed by the redemption of the Sacramento Delta; this followed by the diversification of California agriculture by Chinese, and their Japanese, immigrants.

Once again, as in every aspect of the DNA code, there is the *noir* dimension. It begins with the exclusion of the Chinese from the more choice portions of the Mother Lode. It moves on to the exclusion of Chinese immigrants from court testimony. It continues through the horrible lynching of fourteen Chinese in Los Angeles in October 1871, the "Chinese Must Go" campaigns led by Denis Kearny in San Francisco, and the Oriental Exclusion Acts of the 1880s. In the twentieth century, it continued most horribly in the exclusion of Japanese children from San Francisco schools, the Alien Land Laws of 1913 and 1920, forbidding Japanese immigrants from owning property, the White California Movement of the 1910s and the 1920s, and it culminated in the roundup into concentration camps of Japanese Americans in early 1942, an event that has still not yet sorted itself out in our national psyche.

Once again, however, we ask ourselves the question: do the sins of our fathers and mothers prevent us from affirming that California, now and forever, will always be intimately linked to the Asia Pacific, culture and peoples alike, and even more, that California itself is at the very core of its being part of Asia, now and forever; that well-placed on the double helix of the California DNA code are Asian peoples, Asian aesthetics, Asian food, Asian entrepreneurship, and Asian reverence for tradition and family values? From this perspective, the Confucian ethos was alive and well in California from the early 1850s. Visit the great Joss House in Weaverville in Trinity County, now part of the California State Park system, and you feel in the presence, not of an exotic building imposed on the land, but of a building arising from land and people itself (the more than five thousand Chinese miners in the area), just as the city of Oakland and other California communities have been for the past twenty years partially reconfiguring themselves as Asian American cities.

No wonder, then, that as early as August 1850 the just-established Society of California Pioneers felt that the Gold Rush had brought into being a new order of society itself. No wonder, then, that young

Josiah Royce, wandering the foothills around Grass Valley, saw in the surviving shacks, mine shafts, and graves of the region monuments soaked through with the mystery of time and the significance of historical experience. No wonder, then, that again and again—in 1898, in 1948, and today—we return to the Gold Rush and ask ourselves once again: what are we as a society and who are we as a people?

There are many who will seize upon our new knowledge of the tragic aspects of the Gold Rush past and make of it a weapon with which to fight the good fight—in human rights, in the environment—in the present. While this is a painful experience, it is also a magnificent one. It reinforces what Josiah Royce told us more than one hundred years ago: that California must continue to be understood, to be re-defined, and to be re-earned.

Once again, in absolute moral terms, we must face the fact that all that was achieved by the Gold Rush was not worth the murder of one Native American, much less the loss of an entire people. But we cannot enter the past on a level of absolute moral judgment. The past is already gone. We can only enter the past as part of the living present. If we could all go back to the Gold Rush, we could struggle to save that Indian child or to prevent the destruction of that river. But we cannot assume the mantle of moral absolutism regarding the events of 1848 to 1852. The best we can do is to acknowledge what was wrong—the “sins of the father,” as the Bible puts it—and make sure, as best we can, that these sins are not being recommitted in our own time.

In the meanwhile we must live in the living present of California, whose fundamental texture and reality, whose DNA code, we can glimpse in the far-off days of forty-nine. It takes a different kind of intellectual awareness and a different kind of moral imagination to live simultaneously with both the burdens and the liberations of history. I do not judge those who take an absolute moralist stance towards the past, who try, as best they can, to re-enter history as judges and prophets, having, ironically, been given the tools to do so—the libraries, the archives, the universities and professorships—by the very society that they would now wish to re-enter, condemn, and thereby suggest that it would have been better had that gold-rush society not happened in the



“Chinese Man,” a daguerreotype by Isaac Wallace Baker, ca. 1850s. Arriving in large numbers, particularly after 1851, Chinese immigrants composed nearly 10 percent of the state’s population by the 1870s, and remained important segments of many mining, agricultural, and urban communities into the early twentieth century, when their relative numbers were depleted by death, a shortage of women and children, immigration exclusion, and return migration to China. The Chinese left a creative Asian influence on early California’s agriculture, land reclamation, railroad construction and operation, and urban life that, reinforced by subsequent immigrants from Japan, the Philippines, Southeast Asia, and, after World War II, additional groups of Chinese, lasts to the present day. *Courtesy Oakland Museum of California.*

first place. After all, their trauma is theirs in a special way, and I cannot judge it. And besides: prophetic witness, even at the cost of some intellectual confusion, is necessary for any healthy society.

But for most of us Californians, noting now the Sesquicentennial of those far-off, yet ever-present, ever-shaping events, we are willing to live courageously in the face of a past and present that is at once tragic and liberating. Here, after all, in Califor-



Native son, social critic, and Harvard philosopher Josiah Royce (1855–1916) was among the earliest historians of the Golden State. His *California: A Study of American Character* (1886), (also entitled *California, from the Conquest in 1846 to the Second Vigilance Committee in San Francisco*), treated the period from 1846 to 1856 and condemned the lawlessness and breakdown in social order that characterized early mining society. This caricature of Royce was drawn from life by Homer Davenport, a leading nineteenth-century American cartoonist who contributed his sketches to the *San Francisco Examiner* during the 1890s. Courtesy Bancroft Library.

nia, we are experiencing a prophetic probe, for better and for worse, of the larger American experience. Let us vow not to repeat the sins of our fathers. Let us struggle towards redemption and atonement. But let us realize as well that for all the tangled burden of the past, we still have California: a California stained by sin, true, but a California as well that is struggling toward redemption and the light. Let us see that California, for a moment, like those early pioneers saw it when they were operating at their best: as a grand and shimmering commonwealth, a Pacific City on a Hill (so did the Reverend Timothy Dwight Hunt of the First Congregational Church of San Francisco describe it in 1850), a commonwealth—like Massachussetts, like Virginia, like Illinois—through which the American people would come to know themselves in a special way. Here then, is the California Gold Rush. And here then is the California Dream.

San Francisco-born Kevin Starr, State Librarian of California, is also professor of history at the University of Southern California and the author of the notable Oxford University Press history series "Americans and the California Dream," which includes *Americans and the California Dream* (1973), and *The Dream Endures: California Enters the 1940s* (1997).



This quarter-plate daguerreotype taken of miners in the Gold Rush, ca. early 1850s, illustrates the advantage of cooperative effort over solitary labor. One of the images in the Oakland Museum of California's *Silver and Gold: Cased Images of the California Gold Rush* (1998), it shows six miners who have constructed a water wheel to raise and run water down through a large hose and back to their claim. Other tools and equipment at their site include picks, pans, buckets, shovels, a cradle, and a wheelbarrow. *Courtesy Photographic History Collection, National Museum of American History, Smithsonian Institution.*

Edited by James L. Rawls

The California Gold Rush: A Descriptive Bibliography of Books and Pamphlets Covering the Years 1848–1853.

By Gary F. Kurutz. Introduction by J. S. Holliday. San Francisco, The Book Club of California, 1997, xxvii, 771 pp., \$110 members, \$150 non-members.)

Reviewed by Gregg M. Campbell, professor of American cultural history at California State University, Sacramento, with an interest in Sacramento regional issues and California history. He is a past sheriff of the Sacramento Corral of Westerners and a past president of the Sacramento County Historical Society.

In *The California Gold Rush*, Gary F. Kurutz, special collections librarian at the California State Library, adds another distinguished contribution to his publications on California history that now extend over almost a quarter of a century. As with so many of his endeavors, this volume is characterized by diligence, quality, and Kurutz's singular generosity of spirit.

In his "Preface," Kurutz notes that this work had its origins in 1987, when Robert H. Becker invited him to coauthor a bibliography of the California Gold Rush. This was to have been a revision and extension of Carl I. Wheat's *Books of the California Gold Rush* (1949). Becker knew that he was ill when he contacted Kurutz, but his illness proceeded much faster than he anticipated, and he died in December of 1987, leaving Kurutz to finish their proposed endeavor. As Kurutz states, "it has been my privilege and challenge to complete this project."

As gracious as Kurutz is, it must be noted that the scope of this volume far exceeds either Wheat's original work or Becker's proposed revision. *The California Gold Rush* covers eyewitness and contemporary accounts of the years 1848 to 1853, as well as works published between 1848 and 1994. This volume also covers international gold-rush routes, including narratives of sea travelers. It includes maps, plates, and illustrations, as well as city directories and almanacs, with descriptions of bindings and wrappers. It also includes contemporary satirical works, fiction written as fact, spurious accounts, novels, poems, and plays based on eye-witness or contemporary accounts. Among farcical or satirical works, Chauncy L. Canfield's *The Diary of a Forty-Niner* (1906) is included, because, as Kurutz notes, "some unwary historians still cite it as fact."

In all, Kurutz examined 707 individual titles in the possession of private collectors, research libraries, and individuals—authors, historians, researchers—from California to Zurich. "I attempted to locate all relevant titles in the major United States libraries . . . [plus one Canadian library]," he informs us. "Where practicable I have made every effort to physically examine every title and all its subsequent printings and editions."

In his introduction, J. S. Holliday notes that Gary Kurutz

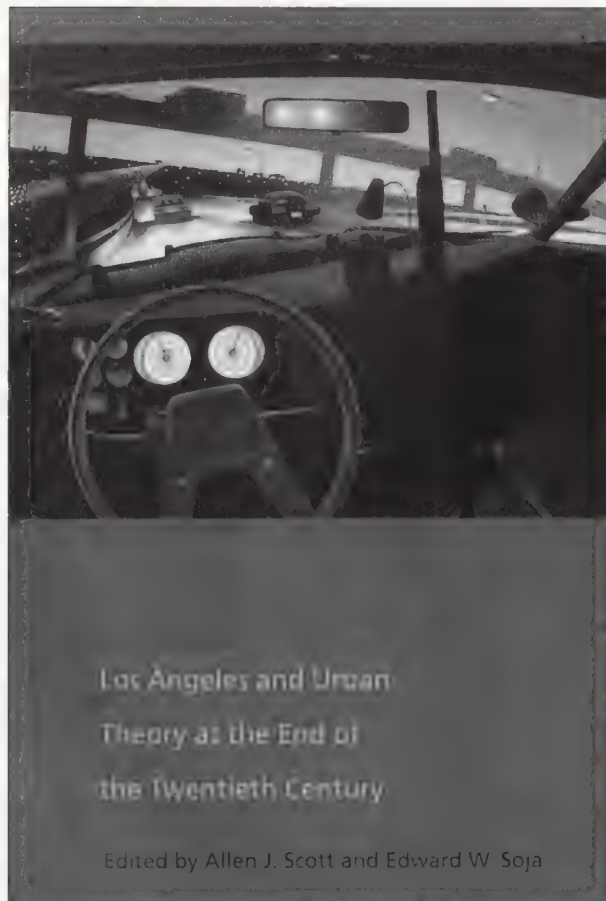
searched and studied for seven years to identify and describe these 707 titles—both Kurutz's "Preface" and Holliday's "Introduction" are dated 1995. There then followed months of typesetting, proofreading, and attention to production details before this work came to print in 1997, giving it the even more epic gestation period of ten years.

And an epic work it is—or in Holliday's words, "monumental." The "first ever annotated, descriptive bibliography . . . that makes known as never before the extent, the magnitude of the literature of the California Gold Rush."

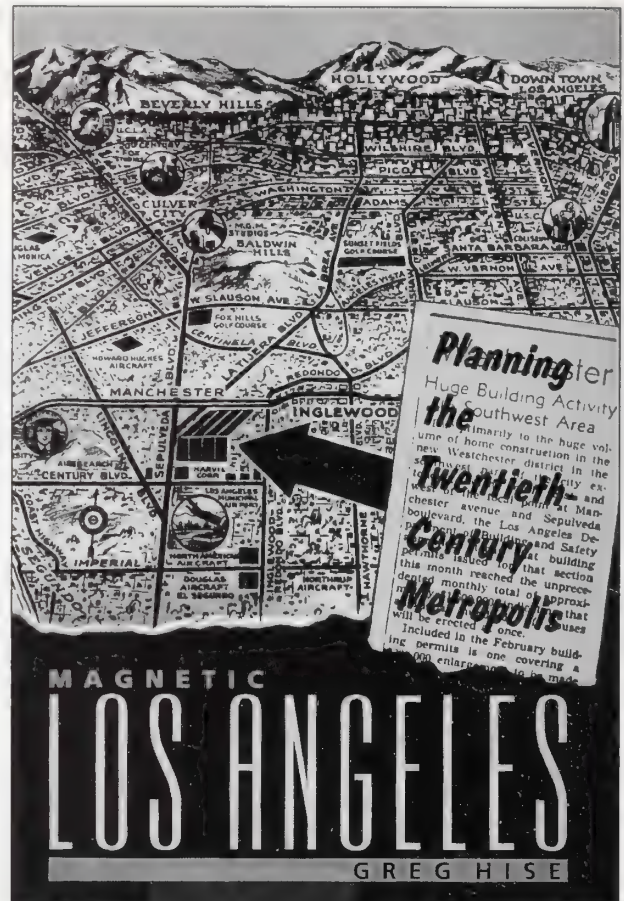
The California Gold Rush contains not only descriptive bibliographies, but numerous essays, as, for example, those accompanying entries on William Tecumseh Sherman, Bayard Taylor, and Felix Paul Wierzbicki. Wierzbicki was a Polish-born physician and surgeon who in 1849 published *California As It Is and As It May Be, Or, A Guide to The Gold Region*, which Kurutz notes "has the distinction of being the first book of an original nature published in English in California."

Gary Kurutz published his first article on California history in 1974. Possessed as he is with such commitment and creativity, his list of contributions will, undoubtedly, continue to grow. But he will have to work hard to surpass this volume, which historians, researchers, and librarians alike agree is a magisterial contribution to our knowledge and understanding of California history.

Books sent to *California History* for review that are not reviewed, but pertain to the collection, are catalogued in the California Historical Society library.



Courtesy University of California Press



Courtesy The Johns Hopkins University Press

The City: Los Angeles and Urban Theory at the End of the Twentieth Century.

Allen J. Scott and Edward W. Soja, editors. (Berkeley: University of California Press, 1996, xi, 483 pp., \$40.00 cloth.)

Magnetic Los Angeles: Planning the Twentieth-Century Metropolis.

By Greg Hise. (Baltimore: Johns Hopkins University Press, 1997, xiii, 294 pp., \$35.95 cloth.)

Reviewed by Andrew Rolle, research scholar at the Huntington Library, whose latest books include Los Angeles: From Pueblo to City of the Future (1995) and California: A History (5th edition, 1997).

The history of Los Angeles has repeatedly been portrayed in non-traditional ways. Both of these books focus upon its architectural planning and sociological landscape. Although each volume includes early developments, their authors deal largely with the post-World War II era.

Scott and Soja are professors of geography and urban planning rather than historians. They have edited a collection of fourteen separate essays by a variety of experts. Space considerations make it impossible to review each essay. Most of the chapters are concerned with L. A.'s contemporary urban problems and the search for ways to solve them.

Hise, too, specializes in planning and urban history. In both books key characteristics appear and re-appear. These include: the complexities of urbanization and suburbanization, the emergence of industrial subdivisions and high-technology, real estate marketing, restrictive neighborhood covenants, spatial design, community social challenges, transportation dilemmas, and disruptive racial tensions.

L. A. has not enjoyed a real center since its Spanish colonial era. The fifteen million people who live within and outside today's Los Angeles include an estimated 1.4 to 2.1 million undocumented immigrants. Such a disruptive population pattern has continued to fracture civic unity. Middle-class white dispersal to the city's suburbs is another theme treated in both of these books. Several authors also examine environmental matters, including the neglect of green parklands in favor of subsidized strip malls.

Hise's volume begins with a discussion of community planning in such L. A. suburbs as Leimert Park, Lakewood, and Westchester. He ranges as far afield as Woodville, once a satellite "new town," in Tulare County, as well as Yuba City. Although Hise invokes a number of national comparisons with L. A., was it really necessary to cast a net as far north as Gridley—or to include Brawley (see map on page 87), which is located in California's southeastern corner? Were such communities, sponsored by Franklin Roosevelt's Farm Security Administration, really a part of, or similar to, L. A.'s suburbs?

Hise and various authors in the Scott and Soja volume pay particular attention to the unique importance of the aerospace industry and its effect upon the development of real estate tracts and home ownership. During World War II the provision of emergency housing for migrant workers set off a housing boom that could be compared with the 1887 influx into the Los Angeles Basin. The sales pitches of land boomers were much the same. Those tuberculars and other invalids who flocked into the area in search of health in the sunshine were also on the market for low-priced bungalows.

Hise points out how, in the inter-war period, pre-fabricated, ready-cut houses helped to lower residential construction prices. He might have mentioned that such structures were shipped around Cape Horn as early as California's 1848–49 gold-rush era. These small houses on oversized city lots eventually gave way to a vertical skyline. Suburban dispersal has resulted in a centerless residential pattern.

Both books are well-researched. The use of manuscript materials is particularly impressive. Yet such comparative printed sources as Glenn Dumke's *Boom of the Eighties in Southern California* (1944) are virtually ignored. It was a relief to find Richard Lillard's splendid *Eden in Jeopardy* (1966) in Scott and Soja's collection of essays. Today's authors can avoid re-inventing the wheel by examining more closely such pathbreaking studies by talented predecessors.

Although other pertinent books, including John Baur's *The Health Seekers of Southern California* (1959), are bypassed, contemporary authors continue to over-value some popular generalizations. For example, in his time Carey McWilliams made important contributions to understanding southern California. But some of his generalizations are now clearly outdated by much more substantial scholarship.

A few more caveats: Hise includes rather lengthy quotations at the head of each chapter; for this reader these were off-putting. Likewise, in the Scott and Soja volume some of the complicated graphs (see particularly pages 308–309) and other statistical data are clearly intended for specialists, not readers of narrative history.

These two volumes are, however, good examples of a new type of urban historical writing similar to Richard Longstreth's *City Center to Regional Mall: The Automobile and Retailing in Los Angeles, 1920–1950*. Such books will be of special interest to designers and planners.

The First Angelinos: The Gabrielino Indians of Los Angeles.

By William McCawley. (Banning, Calif.: Malki Museum Press; and Novato, Ballena Press Cooperative Publication, 1996, viii, 288 pp., \$49.95 cloth, \$34.95 paper.)

Reviewed by Lisbeth Haas, *associate professor of history at the University of California, Santa Cruz, and author of* *Conquests and Historical Identities in California, 1769–1936.*

The First Angelinos is a beautifully researched and written book on Gabrielino society prior to Spanish colonization, with one chapter on the conquest and missions. Gabrielinos inhabited the Los Angeles area from as early as 6,000 B.C. Though named for Mission San Gabriel, the population of approximately five thousand lived in fifty to one hundred towns and settlements before 1769, and spoke at least three dialects of the Uto-Aztecan language. Each community was composed of one or more lineages, and each lineage had numerous kinship groups who shared a common ancestor. Communities were hierarchically organized, with "social classes distinguished by ancestry, wealth, and political influence" (p. 89). Ancestry was important because it provided access to land and goods within the extensive territory that each town or settlement controlled. Though inhabiting exact boundaries, lineages were also connected across territorial divides. They joined together in "ritual congregations" for ceremonies and to forge political and economic alliances.

The book outlines the indigenous past of many present-day communities in Los Angeles, identifying specific village sites in three geographic regions. Half of Gabrielino territory was encompassed by the inland valleys of San Fernando, San Gabriel, and San Bernardino. The coastal prairie constituted eight hundred square miles of land enriched by four major rivers, marshland, and the sheltered bays and inlets of San Pedro and Newport. The southern Channel Islands, an area settled by Chumash peoples until Gabrielino expansion, were closely connected to the mainland through alliances and trade. While recognizing the particularities of each area, McCawley also develops vivid accounts of shared practices in his discussion of the built environment, the production and use of goods, trade, modes of environmental management, ritual life, hunting, fishing, and gathering practices. His descriptions of cultural, religious, and political beliefs and structures portray the sophisticated systems of knowledge and power that defined Gabrielino society.

One of the most remarkable features of the book is that McCawley makes it clear how we know about this society. He describes the historical accounts left by Spanish explorers, missionaries, settlers, and ethnographers. His detailed citations enable the reader to turn to firsthand accounts for further information, and offer an excellent starting point for scholars. His



The "storm over Mono Lake" continues today. In an annual "Rehydration Ceremony," activists pour bottles of water into the lake, symbolically replenishing the vast amount of water drained from the lake's watershed by the Los Angeles Department of Water and Power since 1941. *Courtesy Mono Lake Committee, Lee Vining, Calif.*

extensive and often lengthy quotes enable the reader to imagine Gabrielino society as described by Europeans as early as the sixteenth century.

McCawley draws on the best scholarship and primary sources that are available. The book shares the limitations of that scholarship and archival material: most glaringly, the inability to explain and identify the many changes that occurred within the thousands of years of "prehistory," and the inability to draw on the perspectives of Gabrielinos themselves in any prolonged manner. McCawley attempts to overcome these limitations by conveying the idea that this was a dynamic culture. The book's text, pictures, maps, and reference material, including appendices of vocabularies, an extensive bibliography, and a highly detailed index, are highly informative.

The book ends with short biographies of two Gabrielinos. The lives of Juana María from San Nicolas Island, and Rogerio Rocha, born at Mission San Fernando, provide a glimpse of the Mexican and American periods, when most Gabrielinos who survived the devastation of the mission period left the area in an attempt to avoid further violence and mass deaths. Their stories, and the earlier sketches of ten Gabrielinos and Juanefios who were informants to ethnographers, offer brief accounts of the lived experience and memory of Gabrielino history and culture.

Storm Over Mono: The Mono Lake Battle and the California Water Future.

By John Hart. (Berkeley: University of California Press, 1996, xv, 211 pp., \$50 cloth, \$29.95.)

Reviewed by Gray Brechin, U. C. Berkeley Department of Geography, and author of the forthcoming *Farewell, Promised Land: Waking from the California Dream*.

That which constitutes "waste" changes with what a society values most. Throughout most of California's post-gold-rush history, water was considered "wasted" that found its way to the sea, to a marsh, or to a terminal lake rather than providing the means to raise property values. But as the state's natural environment has grown correspondingly threadbare, other values far harder to quantify have competed for consideration. This conflict provides the tension within *Storm Over Mono*.

Mono Lake occupies a high desert basin east of Yosemite National Park. Its uncanny presence at the foot of the Sierra escarpment, its briny waters, and its ghostlike tufa towers once made it seem forbidding and unapproachable. That suited the mighty Los Angeles Department of Water and Power (LADWP),

whose long-distance aqueduct first tapped the creeks that sustained Mono in 1941. As exports increased, the lake level dropped sharply and the shoreline retreated across broad alkali flats.

Few noticed until the late 1970s, when a small group of young scientists led by charismatic biologist David Gaines set out to rescue what they had determined to be a remarkably productive ecosystem. They were aided by the hunch of law student Tim Such that Mono Lake was covered by an ancient legal concept called the "public trust." Because of their efforts, the lake's plight emerged from obscurity to become an international *cause célèbre* that vividly illustrated the power of cities to degrade distant lands by means of automatic technology.

Poet John Hart's opening explanation of the geological and human history of the Mono Basin, and his evocation of the strangeness of the place, ranks among the finest writing I have read on Mono and serves as the perfect complement to superb landscape photography and maps. The text is further supplemented with photographs of the key players in the Mono Lake drama and extensive sidebars illuminating the conflict from various angles. Generous borders and handsome layout are to be expected from the University of California Press and helped win the book a Silver Medal from the Commonwealth Club of California.

Hart heroically explains the intricacies of a flurry of lawsuits that sought to reconcile human needs and demands with the web of life endangered by LADWP's extractions. The complexity of these cases may be of interest only to legal scholars, but its recounting is essential for understanding how justifiably the book is subtitled *The Mono Lake Battle and the California Water Future*. The precedent set by the State Water Resources Control Board's 1994 order that Los Angeles must restore a measure of what it had so nearly wrecked may well compare with the Sawyer Decision, which halted hydraulic mining in the Sierra in 1884.

Hart provides a useful final chapter on "The Meanings of Mono." For those watching the basin's miraculous recovery, the book explains the dogged persistence of those responsible. Hart's account also suggests how much harder will be those contests yet to come as human demands continue to grow against California's finite resource base.

Migrants West: Toward the Southern California Frontier.

By Ronald C. Woolsey. (Claremont, Calif.: Grizzly Bear Publishing Co., 1996, xviii, 221 pp., \$24.95 cloth.)

Reviewed by Alan Rosenus, author of General M. G. Vallejo and the Advent of the Americans.

Migrants West gives an overview of the settlement of the southern California frontier and utilizes the underlying thesis that Los Angeles was created by individuals in the grip of an all-encompassing passion. This applies most particularly to Hugo Reid, Helen Hunt Jackson, and Antonio Coronel. All three denounced the grave injustices suffered by the region's Indian tribes. Woolsey provides a pungent cache of Reid quotes that reinforce the impression that Reid is a major California figure who has yet to find an adequate biographer. Reid may have been the first southern Californian to notice that if Anglo-Americans thought they were blazing a road to free political institutions, they were frequently waylaid by avarice and sent down the wrong trail by racial prejudice.

Woolsey fills in his picture of southern California by giving us some twelve biographical profiles of the region's most significant settlers. In some of these we can see Woolsey's obvious passion for Civil War material. This, and his desire to display a full complement of gender and racial issues, may have encouraged him to include more profiles than his central thesis could accommodate. The celebrated *Judah v. Everton* case, touched off after a South Carolina slaveholder was arraigned in a Los Angeles Court of Sessions for beating his servant girl, lures Woolsey into an abstract discussion of slavery in the United States. But as Woolsey admits, "neither person played a significant role in Southern California history."

A gritty portrait of Horace Bell, and a handful of telling asides, prove how nasty the spirit of things in southern California could get. For instance, during the 1860s, one Union officer in San Bernardino put in a request for one hundred fifty rifles just to prepare for an upcoming election.

The book contains more than a few stylistic potholes and a handful of enigmas. For example, Woolsey dwells on Margaret Hereford Wilson's life *prior* to her arrival in southern California, barely touching on her career as *patrona* of the Chino rancho while she was wife of Don Benito Wilson. Also difficult to understand is why full portraits of Don Benito Wilson and Harris Newmark were not included in the volume.

As it stands, *Migrants West*, with its useful bibliography and notes, includes some excellent ingredients that occasionally get lost in a framework of indeterminate scope.

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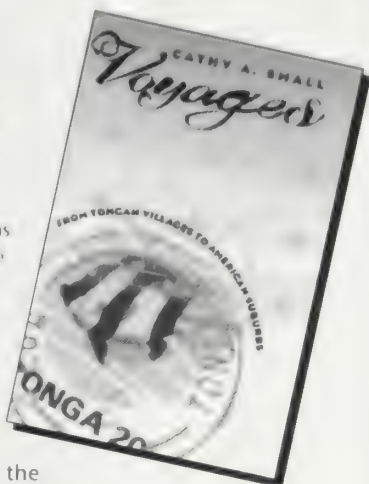
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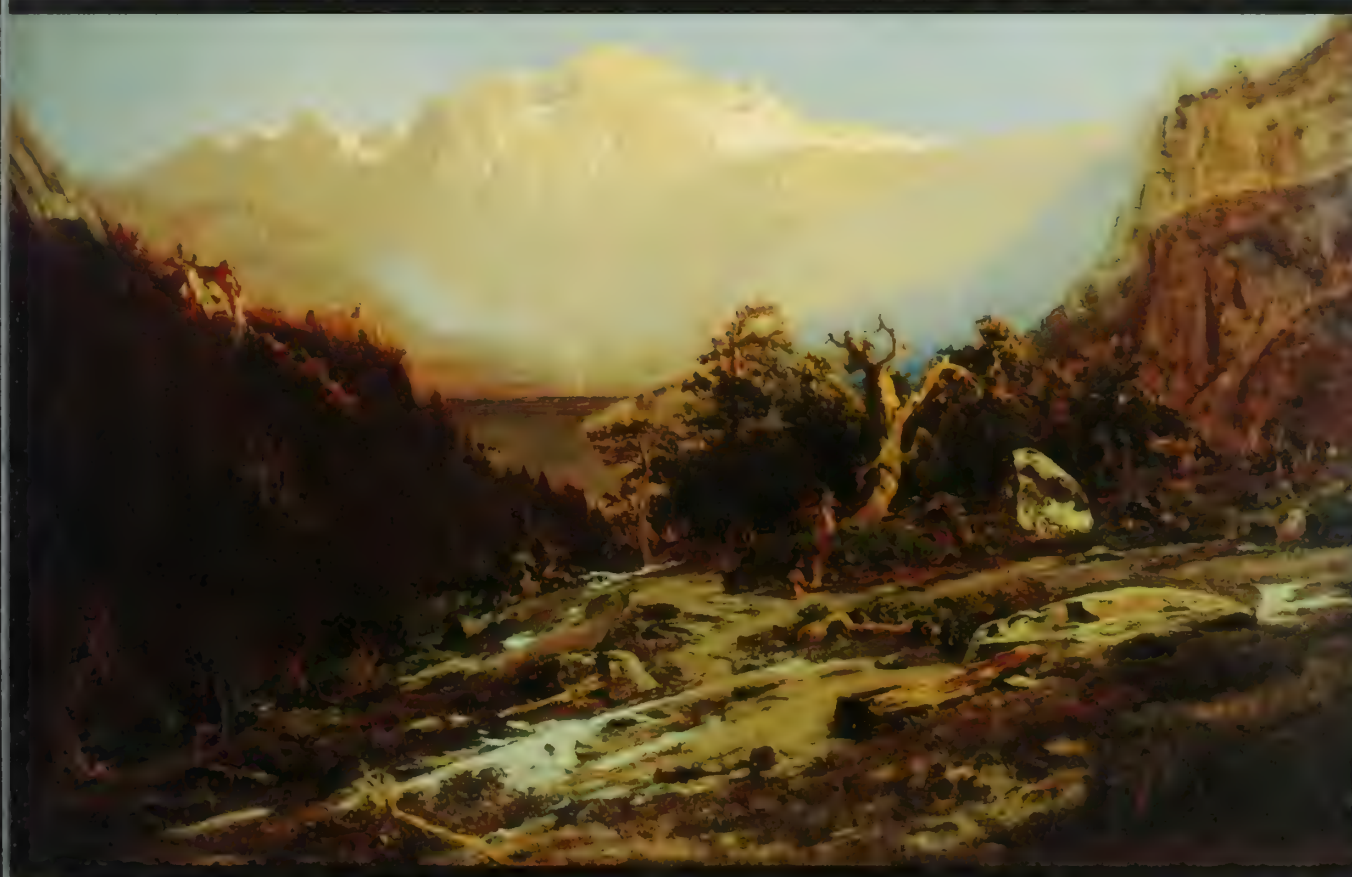
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Editors traveled the globe, but focused on the Far West, including Alaska, Hawaii, British Columbia, Mexico, and the Pacific Rim.

A Comprehensive Resource

Since 1898, Sunset has published more than 18,000 articles, columns, poems, and works of fiction. The chronological bibliography in this book cites 9,400 major Sunset articles, and lists more than 900 Sunset Books titles, editions, and reprints. Entries providing author, title, volume and page number, and publication date are arranged chronologically in 10 categories and many subcategories. Use this resource to explore the Sunset collection in your personal or local library, or to order through the document delivery service identified in the book.

"...Sunset has shaped the way people live in the Far West ..."

Dr. Kevin Starr in his introduction to this volume



Actual size, 8 1/2" x 11", 304 pages

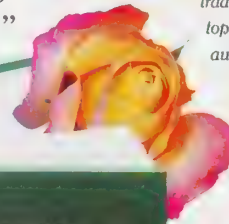
Homes of Character

Respected architects and landscape designers have introduced the world to a distinctive aesthetic that merges the Western home and garden with the greater environment. Here cited are the visions of the long-established AIA/Sunset Western Homes Awards, plus tips for building and remodeling in ways that embody the relaxed Western lifestyle.



Western Gardens

When it comes to gardening in the West, Sunset wrote the book. The magazine broke new ground in 1932 with its first regional editions for gardeners—a tradition that continues across all editorial topics. The Western Garden Book is the authority for amateurs and professionals alike. Now you can peruse Sunset's heritage plus horticultural advice on garden design, landscaping, and caring for plants—whether you're nurturing roses, native perennials, or drought-resistant plants.



Cooking Indoors and Out

Sunset lets Westerners bring new ideas into their homes and kitchens. Now, via the bibliography, one can trace the evolution of the Sunset recipes that defined artful Western cookery long before its contemporary incarnation as "California cuisine." Live the outdoor life, of barbecuing and grilling, patio dining, picnics, and back-country cooking. Peruse decades of homemaking tips, workshop and craft projects, ideas for entertaining, and holiday festivities that epitomize Western living.



Colorful History

Named after Southern Pacific's Sunset Limited, and founded a few years after Stanford University, Sunset has shaped and reflected Western history since 1898. Home to authors such as Jack London, John Muir, and Herbert Hoover, and artists including Maynard Dixon, Will James, and Maurice Logan, Sunset has chronicled the West through two world wars, the Great Depression, explosive population growth, and modern times.



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As *Sunset* continues strong in its second century, this book reveals to legions of loyal readers a truly historic publishing achievement matched by very few magazines—100 uninterrupted years. It also celebrates the long, overlapping histories of *Sunset* and Stanford University—established by the same drive and entrepreneurial spirit that opened the West.

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CALIFORNIA HISTORY

THE MAGAZINE OF THE CALIFORNIA HISTORICAL SOCIETY

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California History is published
with the cooperation and support of
California State University, Hayward.

ON THE FRONT COVER: William Keith (1838-1911), *High Sierras*, late 1880s, oil on canvas, 17 3/4 x 28 1/2 in. *California Historical Society*, gift of Ann Witter-Gillette in honor of Mrs. Dean Witter.

ON THE BACK COVER: William Alexander Coulter (1849-1936), *Free Masted Lumber Schooner, Snow & Burgess*, early 1900s, oil on canvas, 24 x 36 in. *California Historical Society*, gift of Charlene Harvey.

ANNUAL REPORT

July 1997 - June 1998

The essential role of the California Historical Society is to preserve the history of the state and make it accessible to others. Not only do we make our holdings available, we also provide the information they contain so that the public can learn from them and appreciate their significance.

The Society has always been an institution dedicated to learning about the history of our state. This commitment to education was reinforced recently when the Board of Trustees and staff met for a retreat to examine and confirm the Society's values and to set a course for its future. Education emerged as our most important value, borne out by what the Society accomplished this past year.

Much of the Society's public effort was focused on that defining moment in our state's modern history: the discovery of gold on January 24, 1848. The Society's commemoration of this sesquicentennial anniversary—which extends to the year 2000 to include California's admission to statehood on September 9, 1850—demonstrates the ways in which the Society seeks to make history available to all.

The most significant contribution was a special issue of our quarterly, *California History*. Additionally, CHS loaned materials to the major Gold Rush exhibition organized by the Oakland Museum of California, and also presented public programs about the Gold Rush. More publications, exhibitions, and public programs about this important period will continue throughout next year.

We continue to experience a steady growth in membership, to which we are responding with more services and activities not only at our headquarters, but also on our Website. The Web enables us to reach people throughout the state and beyond despite our physical location in San Francisco. In the coming year we will be developing plans to reach more communities directly in addition to expanding our Website offerings.

With this report we record the highlights of the year and invite you to look at the Portfolio of Exhibitions on the following pages which reproduces the texts that accompanied the exhibitions presented in our museum galleries during the year.

SERVING THE PUBLIC

Exhibitions

Each exhibition presented in the CHS galleries examines a different aspect of California's multifaceted history. The exhibitions this year were "Alaska Gold: Life on the New Frontier" (September 4, 1997-January 3, 1998), which told about a Santa Clara County family's search for riches at the turn of the century; "Women in Printing and Publishing in California: 1850-1940" (January 23-April 18, 1998), a look at the professional and social changes affecting women and their accomplishments in the once male-dominated industry; and "Building California: Technology and the Landscape" (May 8-August 15, 1998), an exploration of northern California's architectural history seen through the relationship between building techniques and the natural and cultural environments. See pages 90-105 for the explanatory texts of these exhibitions.

Educational Programs

Thanks to the generous support of the Hearst



An overhead view of the *Building California* exhibition in the main gallery.

foundations, our staff has its first Director of Education, Janelle Wise, who has enhanced the appreciation of our exhibitions in a variety of ways. This first year was one of great strides, leaving exciting challenges and opportunities for the future.

Visitors to the Society may now find museum activities and information in the "Exploring California" education space. This space was created to provide visitors of all ages with new ways to explore our current exhibitions. Hands-on activities, gallery treasure hunts and worksheets, reference books for youths and adults, exhibition-related art and artifacts, and take-home activities are now available for further enrichment of our exhibits.

The "Exploring California" education space, with generous grant from Eva Benson Buck Charitable Trust D, will soon feature an educational kiosk. With text written by noted historian Jim Rawls and images drawn from our collections, the kiosk will enable visitors to take a self-guided tour of California's rich history. This virtual history tour will also be made available on our Website.

CHS visitors may have noticed a great deal of school group activity in our galleries. Free visits are offered to school and youth groups on Tuesdays, Wednesdays, and Thursdays. Thanks to a dedicated group of Docents, we have provided tours for over two thousand elementary, middle, and high school students from both public and private schools in the surrounding eight counties.

During scheduled visits, students explore our current exhibition through a guided interactive tour, then take part in a hands-on activity related to the exhibition's theme. Age-specific activities are designed to complement California's History-Social Science Framework and offer a unique opportunity to learn from objects. We are very pleased to report that the Education Department began its first year with school group tours completely booked for the "Alaska Gold" exhibition.

Students statewide will soon be able to investigate California history through our "Community Treasures" curriculum and an on-line Teacher's Guide. In partnership with Community LORE, a project of the Tides Center, CHS is developing "Community Treasures," an oral history curriculum for third-, fourth-, and fifth-grade students. The curriculum is a "tool box" of activities that leads students in an investigation of their own community history. "Community Treasures" will be piloted in schools in the fall of 1998.

Family programming is another addition to CHS. The Society encourages families to explore our exhibits by offering educational materials and activities that guide families through our exhibits and fos-



Third- and fourth-grade students from San Francisco's Freeman School made snow goggles as part of their *Alaska Gold* exhibition activities.

ter interaction between parents and children. Additionally, for each of our exhibitions, the Society hosts a free Family Day. Families are invited to participate in hands-on activities led by guest artists and to spend the afternoon discovering California's rich history. Family Day programming complements a family's regular visit to our galleries.

Finally, with the dramatic increase in requests for guided tours, our Docent Program continues to expand. CHS Docents are trained to lead both adult and student tours for each new exhibit; newcomers are always welcome. Docent training is given on the first Saturday following an exhibition's opening.

This past year, a foundation has been laid in the Education Department. We now look forward to building on that foundation and offering our members and visitors more educational programs and services.

North Baker Research Library and Photography Collections

Usage of the Library's collections increased yet again during this past year. We now receive nearly 300 phone calls per month for information and research requests. Including letters, E-mails, faxes, on-site requests, and library appointments, each month there are approximately 450 requests for information about California and the West. The Library is serving a wide range of users: architectural, engineering, historical research, and law firms, students, museum professionals, writers, teachers, and film, science and art researchers all contact us for various types of information—from a specific



Director of Education Janelle Wise assisted children from the San Francisco YWCA to create dream houses when they visited the *Building California* exhibition.

date of a historical event to research in one of our unique manuscript collections. We also refer patrons to other institutions that may be of help to them in their research.

The Library's E-mail address, bakerlib@calhist.org, has increased use of the collection by out-of-state patrons. Because our collection catalog is online through MELVYL, the University of California's online catalog, people from all over the world can review what we have. For out-of-town users we offer a list of researchers familiar with our collections who can be hired to do research for a fee.

Our Library volunteers continue to be extraordinary; we truly could not function without them. In particular Donn Schroder and Peggy Zeigler give generously of their time and skills to the Library and its needs.

We are participating in the development of the Online Archive of California, a Website that features Finding Aids for manuscript collections throughout California. This project, based at the Bancroft Library, includes the UC system libraries, the Huntington Library, the State Library, and other research institutions as well as CHS. Another collaboration was our participation in the California Sheet Music: 1852-1900 project, which scanned music and covers of sheet music from national collections and mounted the results on a Website at the University of California at Berkeley (www.sims.berkeley.edu/).

The CHS photography collections in San Francisco and Los Angeles (housed in the Special Collections of the Doheny Library at the University of Southern California) continue to serve as a valuable resource for researchers working on a very diverse spectrum of projects. Scholars from many disciplines use the

collections' images to investigate California's past as well as to illustrate the books, articles and report they produce.

Photographs from the collections have recently appeared on the front page of the *San Francisco Chronicle*, in documentary films including an upcoming PBS series on the year 1900, and in many magazines, journals, textbooks, and Websites. The photographs we hold have been used as evidence in the preservation, restoration, and renovation of gardens, buildings, and major structures including the San Francisco-Oakland Bay Bridge. They have inspired scenic artists, novelists, and designers. Images from the collections have also been seen on display at other institutions including the San Francisco Museum of Modern Art, the Oakland Museum of California, the Ansel Adams Center for Photography, and the Autry Museum of Western Heritage.

The photography collections have also played an important part in the Society's own exhibitions and programs. Photographs from the collections have been displayed in our gallery and have been included in our own publications, *California History* and *California Chronicle*. We also provide tours and lectures to a number of student and professional groups interested in the history of photography, collection care and management, and historical research.

PUBLIC PROGRAMS

The Society is fortunate to have an association with Gary L. Holloway, a native Californian with wide-ranging interests, who conducts walking tours and guides excursions for CHS in his engaging, fact-filled style. A day trip to Sacramento by train (offered January 23 and 24, 1998) inaugurated the Gold Rush sesquicentennial commemorations with a visit to Old Town and its museums. Gary's walks focused on the San Francisco Bay Area, revealing the history and special qualities of different neighborhoods and communities.

The Society also sponsored a day sail on the tall ship *Californian*, giving participants an opportunity to get a taste of the kind of voyage taken by the many who came to California in the mid-nineteenth century. The sail was offered out of Long Beach as well as out of San Francisco. In southern California the Society sponsored bus excursions to a variety of historic sites under the thoughtful guidance of Elinor Oswald of LA Today Custom Tours. In affiliation with Neighborhood Place Project, the Society also offered walking tours of many neighborhoods in the Greater Los Angeles region throughout the year.

Thursdays at CHS, which are one-hour programs presented at 6 p.m., concluded a second year of lec-

Californian sail participants
get ready to haul lines and
raise the sails.



ires and "meet the author" events at the CHS headquarters. There were lectures that complemented the exhibitions during the year. Prominent women in publishing (e.g. Rosalie Muller Wright of *Sunset Magazine*, Barbara Kuhr of *Wired Digital*) provided contemporary perspective that augmented purely historical views ("A Night in a 19th Century Print Shop," given by Alastair Johnson) of women in printing. In architecture, Alice Ross Carey presented case studies of historical buildings undergoing renovation in San Francisco, notably City Hall, and Stephen Tobriner spoke about building strategies in earthquake-prone areas. In July 1997 CHS was honored to present artist Wayne Thiebaud, who discussed ways of looking at the art of Thomas Hill, whose oil sketches were then being presented at CHS. A report of this exhibition was given in the annual Report of FY 1997.

THE CHS COLLECTIONS

The California Historical Society deeply appreciates the generosity of the many individuals, both members and non-members, whose gifts of items to our collections enable us to fulfill our mission of preserving and presenting the state's historic and artistic heritage. All our collections have been enriched by thoughtful donations in the past year.

Fine Arts

The Fine Arts Collections are a dynamic and growing part of our institution. Our rich collections of paintings, prints, sculpture, decorative arts, and costumes are not only preserved and maintained, but

are continually expanding and being made more accessible to a broader audience. We actively pursue new acquisitions, continually use the collection in our own exhibitions, and frequently lend objects to other institutions for display.

In the past year, the Society has lent not only oil paintings from its collections, but also prints, decorative objects, and sculpture. We have lent to numerous institutions in California including the Orange County Museum of Art, the Autry Museum of Western Heritage in Los Angeles, the Monterey Museum of Art, and the California State Capitol. We have also lent to museums outside the state, sending paintings to the Tacoma Art Museum in Washington and the Joslyn Art Museum in Omaha. We are proud that our collections were so well represented in the popular Gold Rush show that opened at the Oakland Museum. We loaned both oil paintings and watercolors to the "Art of the Gold Rush" portion of the exhibition and lent paintings, prints, and artifacts to "Gold Fever! The Lure & Legacy of the California Gold Rush." These objects will travel to additional venues throughout California, and some will go on to the National Museum of American Art in Washington, D.C.

The Fine Arts collection has grown in the past year, and has been strengthened by generous gifts. Two major paintings, depicted on the cover of this issue, entered the collection. One, by artist William Keith entitled *High Sierras* (late 1880s), is shown on the front cover. It was a gift of Ann Witter-Gillette in honor of Mrs. Dean Witter. Scottish-born Keith specialized in painting California's unique topography and diverse landscape. This painting depicts the wild and rugged



John Prendergast, *Montgomery Street, San Francisco, 1851*. Charcoal and graphite on paper, 7 1/8 x 11 in. California Historical Society, purchase with contributions from Stephen L. Taber and Alice Whitson.

beauty of the Sierra. An important maritime painting also entered the collection as a gift of Charlene Harvey. This painting, *Five-Masted Lumber Schooner, Snow & Burgess* (early 1900s), shown on the back cover, is by master ship painter William Alexander Coulter. It not only accurately illustrates the precise details of the schooner *Snow & Burgess*, but also captures the drama of a turbulent sea.

Like the Coulter, other gifts have also concerned California's maritime history. A sea captain's desk came into the collection as a bequest of Evelyn Tilden Mohrhardt; an 1860s naval uniform worn by Lt. Cmdr. J. T. Bingham was a gift from Donna Ricketts Meddish, transferred from the Deschutes County Historical Society; and Kim McCloud donated an engraving of James David Smillie's view of the Golden Gate from Telegraph Hill (1873).

A variety of other objects were given to the collection. Nancy Boas donated two drawings of little girls by artist Mary Curtis Richardson in honor of Anne Charlotta Baeck. Elizabeth Lyman Potter gave a gold medal made by Shreve & Company honoring George D. Lyman for his book *The Saga of the Comstock Lode*. And C. Russell Johnson donated a gold pocket watch and chain (ca. 1867) that belonged to Senator John Conness.

In addition to these gifts, the Society was also fortunate enough to purchase two objects with financial assistance. Through then Board President Stephen L. Taber, and a contribution from Alice

Whitson, the Society was able to purchase an 1851 drawing by John Prendergast of Montgomery Street, San Francisco—a remarkable early depiction of the bustling city. Taber was also instrumental in helping the Society acquire an oil painting by artist Henry D. Gremke. The painting depicts San Francisco in ruins after the 1906 earthquake.

Finally, the Society has an ongoing commitment to conservation. Two paintings and one lithograph are currently being conserved, and four watercolors were reframed with archival materials. William Keith's *Mount Tamalpais from San Rafael*, and Chee Chin S. Cheung Lee's *Unfinished Bay Bridge* (1935) are both being cleaned and repaired. A historical lithograph depicting a view of San Francisco in 1850 is also being conserved with funds contributed by Reid W. Dennis, and four Percy Gray watercolors have been reframed through a gift of Donald C. Whitton.

North Baker Research Library and Photography Collections

The North Baker Research Library collections have continued to be used for research, exhibitions and collaborations. This past year the Library has lent items to exhibits—the Oakland Museum's show "Gold Fever!," the C.E. Smith Museum of Anthropology's show "Golden Dreams and Tarnished Realities" at California State University, Hayward, and the San Francisco Museum of Modern Art's show "Police Pictures"—to name a few. The exhibition "Women in

rinting and Publishing in California: 1850-1940" was rated by Patricia L. Keats, Director of the Library, with the help of Assistant Librarian Jennifer Schaffner and Holly Hurd-Forsyth, the Membership Services Manager who is also a Library Assistant. The exhibition, well received by the Bay Area printing community, drew upon the Library's collections and the Kemble Collections on Printing and Publishing in the West, a special collection within the Library, as well as items from our photography and fine arts collections, Mills College and some private collections. Articles on the show appeared in such national publications as the *American Printing History Association Newsletter* and *Tradeswomen*.

Donations to the Library increased this year and numbered about 400, including not only books, but also manuscripts, pamphlets, maps, and ephemera, as well as some artifacts. Some of the items received were photographs and scrapbooks about Arroyo Grande, a settlement near San Luis Obispo, including handwritten vital records and newspaper clippings ca. 1869-1924; the Dorr Family papers and photographs, ca. 1878-1970, including items pertaining to Ebenezer Dorr, who in 1796 was the captain of the first American vessel to anchor in a

California port, and a volume added to our Kemble Collection on Printing and Publishing in the West, *The Life and Personality of Phoebe A. Hearst*, by Annie Laurie, a fine press book printed by John Henry Nash in San Francisco in 1928. We encourage members to alert us to any records that they feel may be in danger of being lost or discarded that could be valuable research tools for historians. We are currently in the midst of working with several organizations in the Bay Area and in Los Angeles to place their records here at the Society so researchers can have access to them in the future.

The Library now has a small, but ongoing conservation program. With volunteer help, we regularly make acid-free enclosures for our rare and fragile items, and do minor repairs to items when needed. Despite limited conservation funds, our volunteers and staff do all they can for those items that are most in need of conservation.

We continue to strengthen our photography holdings. Recent additions to the collection have included nineteenth- and twentieth-century prints and negatives that reflect the changing landscapes and evolving communities of California.

27

Born 1867

Arroyo Grande	To Mrs and Mr
James M Lewis a son	Lowell
	To Mrs and Rev
Alb Prewitt a daughter	Corbie
Arroyo Grande Sept	To Mrs and Mr
John F Fiedler a son	Ferdinand
Arroyo Grande Sept	To Mrs and Mr
Ermond P Paulding twins	Mary and Lita
Arroyo Grande Sept 4 th	To Mrs and Mr
William Hyde a daughter	Princess Beatrice
Arroyo Grande Sept	To Mrs and Mr
Lyman Basteel a son	
Arroyo Grande	To Mrs and Mr
Patrick J Hamilton a daughter	Mary
Arroyo Grande Sept	To Mrs and Mr
E. P. Hamilton a daughter	Josephine
Arroyo Grande Oct 14 th	To Mrs and Mr
Adolph Brieger a son	Edgar
Arroyo Grande Dec 14 th	To Mr and Mrs
Ch F Parsons a daughter	Pres Edna
Arroyo Grande July	To Mrs and Mr
Jose Rodriguez a daughter	Lena
San Luis Nov	To Mrs and Mr
Edward Gansung a son	William
	To Mrs and Mr
George M Fiske a son	Leroy



A page from "No. 1. This Record is of Marriages, Births and Deaths of People we have known in California, etc. Compiled by Lucy A. Wood for the years from 1869-1909. (Authentic.)" The majority of this manuscript collection [MS 4005] pertains to Arroyo Grande, a settlement near San Luis Obispo. Infant twin girls, Lita and Mary Paulding, are shown in the arms of their parents. A record of their birth appears with those born in that settlement in the year 1887.

PUBLICATIONS

California History, the Society's internationally recognized quarterly, celebrated its 75th anniversary with the publication of *Contested Eden: California Before the Gold Rush*. This volume launched the Society's four-year, four-volume publication program in association with the University of California Press and is the Society's primary contribution to scholarship about the period celebrated by California's sesquicentennial. Series editor Dr. Richard J. Orsi, Editor of *California History*, working with a different consulting editor for each volume, has set the ambitious task of presenting new insights by leading scholars that incorporate the wealth of new information uncovered by research in recent decades.

Dr. Orsi and consulting editor Ramón A. Gutiérrez filled this first volume with thirteen essays by specialists dealing with early California—from indigenous flora and fauna, to native peoples, to the Spanish and Mexican presence. Early California history is of great significance but is often overshadowed by the fascination with the Gold Rush itself. Thus, *Contested Eden* began our sesquicentennial series by placing the focus on the events and circumstances that were the precursors to the Gold Rush. It was published simultaneously as a double issue of *California History* and as a book, attracting praise for its presentation of complex subjects in a scholarly yet readable style, as well as its many, rare illustrations.

The subsequent volumes in the series will be: *A Golden State: Mining and Economic Development in Gold Rush California*, James J. Rawls, consulting editor; *Rooted in Barbarous Soil: People, Culture, and Community in Gold Rush California*, Kevin Starr, consulting editor; and *Taming the Elephant: Politics, Government, and Law in Pioneer California*, John F. Burns, consulting editor.

The Society was also co-publisher, with Scottwall Associates, of a profusely illustrated volume, *Alaska Gold, Photographs and Letters of the McDaniel Brothers, 1898-1906* which accompanied the exhibition presented at CHS. Lastly, CHS co-published with Heyday Books the reissue of *Jazz on the Barbary Coast* by Tom Stoddard.

VOLUNTEERS AND INTERNS

The CHS staff thanks all the volunteers and interns who have supported us during this past year. The Society thrives because of their dedication and enthusiasm. We are both indebted to and grateful for their time and commitment.

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MEMBERSHIP AND PUBLIC SUPPORT

There were 1,433 new members enrolled this year, and prior members renewed at the rate of 80 percent—a high statistic for this kind of organization. There were 5,824 members of record at the close of the year, compared to 4,980 the year before. Annual support from the members through membership gifts and contributions to the Annual Fund rose by 25,000 this year, reaching nearly \$430,000 and representing 50 percent of CHS revenues for the year.

We extend our thanks to every member, and particularly acknowledge those whose generosity has surpassed \$250 during the year. The last pages of this publication contain a list of the high-level donors, the donors to the Annual Fund, and a roster of new members. We greatly appreciate the growing support extended to us.

Special events also result in public support and bring the Society to the attention of new people each year. A number of CHS Trustees and the CHS Activities Council were responsible for two fund-raising events this year. On October 3, 1997, CHS collaborated with the National Maritime Museum Association in San Francisco to present "Night on the Barbary Coast," an evening of entertainment, food, and drink that harkened back to San Francisco's notorious past. Trustee Patti Warner assembled a large group of performers and staged two musical reviews for the evening, which were the hit of the party. The Activities Council, chaired by Mrs. John J. (Patty) Williams, repeated its successful "Hats Off!" annual luncheon, this year honoring former San Francisco Mayor George Christopher. The festive occasion at the historic Palace Hotel on October 9, 1997, attracted a crowd of 383 people and raised \$26,000 to support the Society's programs.

This year the Society resumed its tradition of a Christmas tree-trimming party for its members. Members were asked to bring an ornament for the tree or provide a gift to be donated to a needy child. The December 14 event featured carols by the group "Solstice" and refreshments, and the CHS bookstore offered special holiday discounts to members.

GOVERNANCE

The Society's Board of Trustees was led by Stephen J. Taber, Esq., who completed his second year as president, culminating eight years of service on the board. The composition of the Board remained unchanged from the year before. The full list can be found on the last page of this publication. In addition to its oversight of the Society's finances and activities, the Board undertook a planning process

with the assistance of Martin Paley of the Center for the Common Good. Mr. Paley's work with the Board and staff focused on the Society's central values in order to develop a measuring tool against which future plans can be judged. In an intensive retreat held on June 19-20, 1998, trustees and staff deemed education to be the Society's most important value, touching, as it does, on all of the Society's undertakings. Goals for the future were outlined and the Board plans to refine them during the coming year.

The California Historical Foundation continues to oversee the management of the Society's endowment. The twelve-member group is appointed by the CHS Board of Trustees and is chaired by George Basye, Esq., former President of the Society's Board of Trustees. The CHS Endowment grew by \$102,318 and had a market value adjustment of \$149,270, ending the year with a total market value of \$4,609,502.

STAFF

The staff of CHS may be small in number, but it is composed of outstanding individuals of accomplishment. They are active in a diverse range of professional associations and participate in collaborative projects with many organizations. They are encouraged to extend their professional skills, be the ambassadors of CHS, and enhance our outreach efforts. The staff list is given on the last page of this publication.

The first major addition to the CHS staff this year was Janelle Wise, appointed Director of Education in July. An art historian and educator, Ms. Wise was a museum educator at the Philadelphia Museum of Art before becoming the Director of Education at San Francisco's Jewish Museum. An experienced teacher, she is also noted for the creation of a teen docent program at the Jewish Museum.

In April the Society was able to add a Curator of Fine Arts to its staff, thanks to generous gifts from Mr. and Mrs. Reid Dennis, David and Elizabeth Potter, and Dr. Albert Shumate. The position was given to Scott A. Shields, who gained exposure to the work of California artists during an internship at the M. H. de Young Memorial Museum and who is currently finishing his dissertation "Bohemian Visionaries the Monterey Peninsula and the Bay Area Avant Garde," as a doctoral candidate in art history at the University of Kansas.

Assistant Librarian Jennifer Schaffner joined the staff in September, coming from the Institute for Advanced Study at Princeton University. She replaced Beth Graham, as was reported in the 1997 Annual Report. We acknowledge with thanks the contributions of Yvette De Andreis, who served as public relations manager until May 1998.

ALASKA GOLD:

LIFE ON THE NEW FRONTIER

The Photographs, Letters & Artifacts
of the
McDaniel Brothers

SEPTEMBER 4, 1997 - JANUARY 3, 1998

Before the discovery of gold on Alaska's Seward Peninsula, the only outsiders to visit this sparsely populated tundra were whalers, missionaries, traders, and reindeer herders. But, in September 1898, three Scandinavians struck pay dirt on Anvil Creek and word of the discovery spread. The stampede was on. Among the first to arrive were miners already working in the Klondike, but by June 1899 ships from Seattle, San Francisco and beyond were arriving with hordes of gold seekers. This motley group became the inhabitants of Anvil City (later renamed Nome), the rowdy frontier town that sprang up where the tundra meets the Bering Sea.

Alaska Gold: Life on the New Frontier tells the story of two fortune seekers, Wilfred and Edmund McDaniel of San Jose, who traveled to Nome in 1900 to try their luck in this arctic El Dorado. When the McDaniels arrived from San Francisco on the steamship *Senator*, they found mile after mile of beach covered with tents and thousands of prospectors mining Nome's beaches. After their 3,000 mile voyage, they did not have to travel far to begin mining—they pitched a tent eight miles north of Nome and began rocking beach sand. This was their first season of prospecting in Alaska. From 1900 through 1903, they sailed back to California each October before the Bering Sea froze, and returned



(L to R): Wilfred and Edmund McDaniel. Unalaska Island, 1900.



S.S. *Senator* in the ice. Bering Sea, 1900.



Mining on Nome beach - Jessie and Edmund McDaniel on their beach claim. Nome, 1906.

Nome after the spring thaw; in 1904, they began mining in Nome and mining year-round. Wilfred memorialized their journeys to and from Alaska and their experiences in the arctic by taking photographs with his view camera. The brothers also corresponded regularly with family and friends in California.

Wilfred and Edmund had grown up on their parents' apricot ranch in temperate San Jose, and the arctic climate challenged them. Winters in Nome were long and brutal, sunlight lasting only four hours at the winter solstice, and the temperature often dropping to fifty or sixty degrees below zero. When outdoors, working or traveling by dogsled, the brothers wore Inupiaq clothing—muskrat and reindeer hide parkas, hoods trimmed with wolf fur, and waterproof sealskin boots stuffed with dry grass. But not all was harsh and forbidding. On a trip to Cone Mountain, Wilfred wrote, "The morning is warm and sunny, just like California weather in May. The distant mountains are white with snow and the dark blue Bering Sea makes a grand picture as it sparkles in the sunlight." In the summer, when the gently rolling plain of the Seward Peninsula greened, the McDaniels could travel overland to enjoy the natural beauty of the landscape and to harvest the bounty of wildflowers and berries offered up by the tundra. Anglers also found the streams and rivers generous. Wilfred reported having the best fishing of his life in Otter Creek.

Though initially not interested in his native Alaskan neighbors, Wilfred befriended Seeyauk, a young Inupiaq boy, and the boy's family. It was from Seeyauk that Wilfred learned some of the Inupiaq language. Seeyauk shared native delicacies with the brothers—a piece of seal liver or a choice cut of seal meat, fish, or berries from the tundra—and taught them about native life. Later, the McDaniels expanded

their travels by crossing the Bering Strait and visiting native Siberian villages.

The brothers' tent at the beach's edge provided little protection against the bitter cold and wind, so in 1901 they bought a 16 x 20 ft. log cabin for twenty dollars. They threw a canvas cover over the roof to prevent leaks, and Wilfred boasted in a letter home, "Our cabin is the best on the beach." Later, they bought cabins at Quartz and Edwards creeks. These became homes-away-from-home for the McDaniels, especially when Edmund's wife Jessie arrived in 1904. She helped create a homey space, replete with wallpaper, curtains, and bric-a-brac on the shelves.



Penny River Natives. Nome. 1900.



McDaniels' Edwards Creek cabin. Nome, 1905.

After the flimsy, drafty tent that had been their first shelter in Nome, the cabins were a welcome change. The comfort and safety afforded by their cabins also provided a strong counterpoint to the lawless and dangerous Nome, where the amalgam of prospectors, schemers, confidence men, and riffraff mugged, assaulted, brawled, and otherwise caused mayhem regularly. Nome's population had exploded from a few hundred to over twenty thousand in a year, making it the largest and most lawless town in Alaska. Gangs operated freely in the crowded streets—men sometimes hauled away cabins at night with their owners still in them. Rowdy saloons proliferated along Front Street; in 1900, Nome had fifty saloons, a number that soon doubled. Wilfred wrote in 1900: "We are away from town and glad of it. Don't want to go there. It's full of bums and sure thing men. Lots of men are getting in bad circumstances here. I think the government will have to take them out."

As boys, the McDaniel brothers first prospected near their parents' ranch in San Jose; as grown men, they worked their father's placer mine in Trinity County. This experience helped them greatly in their venture on the Seward Peninsula. Unlike many gold seekers who abandoned Nome frustrated after a single season, the McDaniels patiently and diligently applied their knowledge of sluicing and other mining methods to increase their yield of gold from the beach sand and pay dirt. The brothers expanded the family operation, hiring three men to help with the mining and using a gasoline engine to pump sea water through sluices. During the winter, they also turned to steam-thawing to melt through the permafrost and mine ancient beach lines below the tundra. Their time prospecting in the arctic allowed Wilfred and Edmund to be entrepreneurial, independent, and self-reliant, much as the forty-niners had been during California's Gold Rush. Although the McDaniels did not make any major gold strikes,

their steady, persistent work from 1900 to 1906 paid off. Indeed, of the thousands of prospectors who worked the Nome area, they were among the few who succeeded. When they finally left Nome, they had collected enough gold to pay off the mortgage on their parents' San Jose ranch and establish themselves as contractors building homes in the San Clara Valley.

The McDaniels traveled thousands of miles to prospect for gold in Nome. Once in Alaska, they did more than simply dig up the land to reveal its hidden treasure—they grew to appreciate its stark beauty, natural rhythms, and native peoples. The words penned by the McDaniels, Wilfred's photographs, and the items they collected while in the Arctic all serve as trail markers for us today, clues to what life was like for the prospectors who dared to endure hardships in the far north for the sake of finding the precious ore. The McDaniel brothers' legacy is not a poke full of gold dust or a stack of ingots, but rather a trail of experiences and memories revealed to us through their artful photographs, thoughtful letters, and choice artifacts.

Guest curator: *Jeff Kunkel*

Brochure text: *Jack Hotchkiss*

Photographer: *Wilfred McDaniel*

We gratefully acknowledge the generous owners of the McDaniel family collection: Wilfred Jr. & Lois McDaniel, Robert & Irene Johnson.



(L to R): Jessie McDaniel & Lottie Renny with tundra flowers. Nome, 1905.

WOMEN IN PRINTING & PUBLISHING

IN CALIFORNIA, 1850-1940

**The California
Historical Society**

January 23rd to April 18th, 1998

INTRODUCTION

California was not the first place where women were involved in printing and publishing. Since the Renaissance, women had been part of the printing trades in Europe. Whether as bookbinders or as widows of printers who were left to continue their husbands' printing businesses women have been involved in the printing, publishing and selling of books and journals for many centuries. A woman's typographical union was formed in France with a journal entitled *La Compositrice*, and the first major woman's journal edited by a woman, *Godey's Lady's Book*, was published in Philadelphia from 1830-1858, edited by Sarah Josepha Buell Hale. In 19th century England, Emily Faithful started a printing office exclusively for women workers - but gave it up after a few years and became a full-time publisher.

This exhibition illuminates the many roles that women have played in printing and publishing in California's early history. It will not romanticize their struggle - these 19th century women faced union resistance, prejudice against women working in male work force, and general problems encountered in owning their own businesses. With the dawn of the 20th century and the emergence of


women's rights, women in printing and publishing entered more seamlessly into the work force. Finally, with the advent of fine press printing at this same time, the women printers portrayed in the 1920s and 1930s emerge as figures who achieved their goals to work at a skilled occupation that offered them not only an honest living but also a chance to use their creative instincts and skills.

WOMEN AS PRINTERS

The idea of women typesetters is uniquely suited to California and the West - a result of the need to work and survive in a new land which demanded self-sufficiency and skills of women as well as men. In the 1830s there were a limited number of occupations open to women - teaching, needlework, domestic service, etc. - and among these was also typesetting. Women who were widows or daughters of printers often learned typesetting out of necessity. By 1864, due in large part to the depletion of the male work force during the Civil War, additional workers were needed in trades which were previously thought of as "male" trades - one of these being typesetting. The number of newspapers and the demand for printed materials was on the increase, and

W. P. RICHMOND. MRS. L. G. RICHMOND.

WOMEN'S
PRINTING
COMMERCIAL
RULING and



CO-OPERATIVE
OFFICE,
PRINTING
BOOK-BINDING.

Nos. 420, 424 to 430 Montgomery Street. Elevator Entrance 424.
SAN FRANCISCO, CAL.

women began to step into jobs in both the printing and publishing fields.

In San Francisco, which was becoming a center for printing and publishing in the West, women-run printing offices appeared in the 1870s and 1880s. The Women's Union Job Printing Co., the Woman's Publishing Company, Amanda B. Slocum and Jennie Patrick were a few either woman-run and/or -staffed printing offices of this period. The most prominent and prolific was The Women's Co-Operative Printing Union, established in 1868 on Clay Street by Mrs. Agnes Peterson, followed in 1873 by Mrs. Lizzie G. Richmond. Early 1870 billheads produced by the WCPU proudly proclaimed, "Women set type! Women run presses!" So confident was Lizzie Richmond that her billheads and advertisements often stated, "We invite criticism." These printing offices produced a variety of printed materials for the public - books, commercial catalogs, corporate annual reports, legal briefs. Also produced were invitations, broadside advertisements, and handbills - often referred to as "jobbing printing" because they could be produced completely off a single sheet of paper or card.

Incorporated June 18, 1869.
CAPITAL STOCK, \$10,000.

MRS. L. G. RICHMOND, - - - Superintendent.

WOMEN SET TYPE!
WOMEN RUN PRESSES!

The very best Printing, in all branches of the business, promptly executed, at very low rates. We guarantee satisfaction. We give FULL NUMBERS, always, whether the order is for 1,000 or 100,000. Call and examine specimens.
WE INVITE CRITICISM.

PUBLISHING AND THE SUFFRAGE MOVEMENT

During the late 19th century, women writers often moved into positions as editors of newspapers or small journals. At this same time, the Woman's Suffrage Movement was gaining momentum and the women-edited journals were the obvious choices in which to further their cause. Spiritualism was also a popular movement at the turn of the century among women - largely because it did not discriminate by gender or ethnic background - and the women publishers felt a kinship because of this non-discriminatory nature. Journals such as *The Carrier Dove*, *The Spiritualist*, and *The Golden Dawn* were all journals edited by women and devoted to not only Spiritualism but in some cases, also to the Suffrage Movement.

Other women publishers and editors followed a more literary angle, publishing journals which featured articles on a wider variety of topics. In 1863, M. Lester took charge of the *Pacific Monthly*, a woman's literary magazine previously known as the *Esperian*. It had a rocky career as was the career of M. Lester - who was widely known for her strong opinions on many topics and her tussles with the male typographical unions. Another woman, Emily Fets Stevens, gained prominence when she transformed the *Sunday Evening Mercury* - which was known as "a Journal of Romance and Literature" - into the premier voice for woman's suffrage in the West. She hired women to set type for her newspaper and in 1869 changed its name to *The Pioneer* - as "a name that more nearly covers our thought and tells the nature of our object and ambition." She became a major force in the founding of the California Woman Suffrage Association on January 28, 1870.

ILLUSTRATION TECHNIQUES

The many journals, newspapers, books, and even billheads that were printed during the late 19th and early 20th centuries used mainly one method of illustration - that of the wood engraving. This technique - refined by Thomas Bewick in England around 1830 - utilized the following equipment: 1) a woodblock with an end-grain cutting surface, preferably boxwood which is hard and fine-grained; 2) cutting tools normally associated with metal engraving such as burins or gravers and a steel needle embedded in a wooden grip; 3) a small ink roller and; 4) a spoonlike wood burnisher for hand-printing, or a printing press.



Leila S. Curtis and Eleanor P. Gibbons were two women who started up and ran successful engraving businesses in San Francisco. Both were trained in engraving and design. Their designs were found on billheads, business cards, and stationery, as well as in book illustrations, commercial catalogs, and innumerable other small printed items. Magazines published during this period often used the technique of the woodcut - rather than a wood engraving - to illustrate their pages. The technique used in producing a woodcut allowed for larger more fluid compositions. Lucia Mathews cut the designs for *Philopolis* (1906-1919) - a magazine published by Arthur, her husband, and herself during the early part of the 20th century. Florence Lundborg, an artist influenced by both Art Nouveau and the Arts and Crafts movement of the early part of this cen-

tury, produced woodcut images for *The Lark*, the San Francisco literary magazine published by Bruce Porter and Gelett Burgess from 1895 -1897.

BOOK AGENTS AND BOOKS

In 19th century America, using book agents was an important alternative method of selling books to the public. Into communities remote from bookstores and libraries they brought novels, histories, and a variety of handbooks on subjects such as farming, law, and cookery. Nearly all the publishing houses in the mid-19th century sold their books by subscription as well as through retail trade. Subscription books are those for which a definite market is created, before or after publication, by soliciting individual orders. The county histories, county biographies, and atlases that were printed around 1870 in the United States, as well as Audubon's *The Birds of America* and many of Mark Twain's books, were all sold by swarms of energetic book agents across America.

In a country as thinly populated as 19th century America, printers and booksellers could count on only a small number of sales over the counter. Book agents or salesmen were held in esteem for the most part and many famous Americans beat the pavements and dirt roads selling books in their early years - Daniel Webster, Bret Harte, and even George Washington. Enterprising publishers realized that a greater public was eager to buy books if the books could be taken to the buyer. Book agents were the means for this - and many women found this profession suited to their needs and abilities. It was their job to sell books as well as lithographs - for people wanted books not only to read, but also as a hallmark of social standing. Books were equated with knowledge and wealth in the emerging middle and upper classes of American society.

WOMEN FINE PRESS PRINTERS

The turn of the century saw an increased interest in the aesthetic aspects of printing - now that women were an accepted part of the work force - and many fine presses sprang up throughout the state. A fine or "private press" is generally understood to be a



The logo of Jane Grabhorn's Colt Press

small printing house which issues for public sale limited editions of books which have been carefully made on the premises. In a letter to the *Monotypic Recorder* in 1933, Eric Gill stated "a 'private' press prints solely what it chooses to print, whereas a 'public' press prints what its customers demand of it."

By the 1920s a tradition of fine printing was well under way in San Francisco, with Taylor and Taylor, John Henry Nash and the Grabhorns already fairly well established. These printing houses encouraged printing by women - some of these women being Mae Hartmann and Fritzie Buchignani, compositors for Nash; and Jane Grabhorn and Katherine Grover, typesetters for the Grabhorn Press. Other women with their own presses were Rosalind Keep of the Eucalyptus Press, Helen Gentry, and Jane Grabhorn at Colt Press, which was founded along with William Matson Roth and Jane Swinerton. In southern California, private presses were often husband and wife teams. The Saunders Studio Press of Claremont was founded in 1927 by Lynne and Ruth Thompson Saunders. The Plantin Press in Los Angeles was established in 1931 by Saul and Lillian Marks, Saul being in charge of design and layout and Lillian responsible for composition.

CONCLUSION

These women fine press printers were the natural evolution of the 19th century women apprentices, widows, and daughters who fought or found themselves heirs to work in a printing business. With the increasing interest in aesthetics and the influence of the arts and crafts movement in the early 20th century, women printers were able to utilize not only their technical skills as printers and typesetters, but also their creative instincts as artists and book designers.

GLOSSARY OF PRINTING TERMS

compiled by Alastair Johnston, Poltroon Press

California Job case – wooden case for type containing all the main characters for text setting, introduced in San Francisco.
Chappel – printers' fraternal organization within a printshop used for establishing decorum and settling disputes.
Composing stick – a metal holder in which the compositor sets up type in words and lines.
Head Bank – where printed matter sits awaiting distribution.
Levil – apprentice printer.
ngbat – ornament cast in lead.
n – the square of a type body - thus in Pica type it is 12 points wide by 12 points high.
t Take – a typesetting job with a lot of blank space, as in poetry or display work.
orme – a metal chase or frame containing pages of type held in place by quoins and wooden furniture.
alley – a tray, usually brass, for holding composed matter.
ellbox – container for broken or worn type waiting to be melted down.

Jeffing – another name for "quadrats," often played to see who buys the beer.

Make-up – the art of breaking galleys of composition into pages.

Point – the basic typographical unit - a twelfth of a pica, about 1/72nd of an inch.

Quoin – wedge device for locking up formes.

Rounce & Coffin – the crank and bed of an iron hand-press.

Slug – a six-point wide piece of lead used for spacing; a line of Linotype; a board for organizing subs in a large shop.

Wayzgoose – winter holiday in the chappel.

Widow – a solitary word at the end of a paragraph, to be avoided.

The idea for this exhibition grew from *Women in Printing: Northern California, 1857-1890* by Roger Levenson. Mr. Levenson founded the Tamalpais Press in Berkeley in 1953, and worked with the Kemble Collections at the California Historical Society during the 1980s.

PATRICIA L. KEATS

Exhibition Curator and Director of the Library
North Baker Research Library

A special thanks goes to Alastair Johnston, whose enthusiasm and ideas helped make this exhibition possible - and fun. Thanks also to Janice Braun, Holly Hurd-Forsyth, Terry Keats, Jennifer Schaffner, Marian Ueki, Kathleen Walkup & Emily Wolff for their research help. Thanks also to Kathryn Kowalewski, Bo Mompho and Janelle Wise for photographic, installation and educational support.

BUILDING CALIFORNIA

Technology and the Landscape

May 6-August 15, 1998



*Construction of Dry Dock,
Marine Island*



View from the Delta Works

What are buildings made of? Were they always built the same way? How is the world we build connected to the natural world? What does a history of northern California architecture tell us about this place?

The history of California building is one of physical materials -- wood, brick, iron, steel, and concrete and changing technology. It is also a history of the relationship between building technologies and the natural and cultural landscapes. This relationship implies an understanding of the landscape as a visible record of human beings living on the land, and adds to an exploration not only of the physical appearance of places, but also the social and environmental influences that shape technologies. *Building California: Technology and the Landscape* addresses a range of connections between building technologies and the world around them.

Tracing the development of the built landscape in northern California from pre-colonial times through World War II reveals an intricate and layered view of the structures we see around us. Photographs, drawings, documents, and artifacts illustrate how shifts in population have brought new technologies and materials into use, how natural resources and disasters have affected the growth of California cities and towns, and how roads, electrical lines, and aqueducts linked urban and rural landscapes. This evolution of the use of structures and materials serves as a framework for understanding individual buildings, and as a foundation for the continuing process of building California.

NATIVE CALIFORNIA

The materials and styles of Native Californian structures varied according to place and season, reflecting the diverse natural landscapes and climates within the region. Buildings also varied according to precipitation, soil, vegetation, and the proximity of usable tools. Although some communities, such as the Yurok, built permanent villages, most native peoples built settlements to last only from season to season, or for a few years. Constructed of local materials, the built landscape echoed the colors and textures of the natural landscape. Once abandoned, most village sites quickly reverted to their original condition. None of the structures built during the pre-colonial period exist today.



Construction of Mission Dolores, San Francisco, Turrill & Miller, 1913. *California Historical Society, FN-31148.*



Digger Indians, Ten Mile River, Mendocino Co., Martin Mason Hazeltine, ca. 1880. *California Historical Society, FN-30921.*



Old Adobe. 120 years old, George Fiske, 1880s. *California Historical Society*, FN-30915.

COLONIALISM: IMPORTED TECHNOLOGIES

The colonial period in California saw enormous changes to the region's culture and architecture. When the Spanish arrived in northern California in the 1770s, they brought building traditions and technologies from Europe and Mexico. Colonial structures were larger and more complex than those of Native Californians. They required both the craftsmanship of skilled artisans and physical labor provided by Spanish and Native workers, and animals.

Like Native Californians, colonial settlers relied primarily on local materials. The most prevalent type of construction used adobe bricks, made from clay and straw, and a masonry technology common in Spain and Mexico. Walls were constructed of adobes

held together with mud mortar. Buildings had flat or pitched roofs, made of clay tile or thatching, and were often covered with a white limestone coating. More substantial buildings were constructed of stone from local quarries.

THE GOLD RUSH

The Gold Rush brought tens of thousands of people to a place without enough buildings to accommodate them, and without an industrial structure sufficient to produce building materials from the region's natural resources. Gold Rush builders applied technologies from other places and were forced to import building materials produced nationally and internationally.

Corrugated Iron House, Adapted for California, the Colonies and other parts, which can be made two or three stories high, artist unknown, n.d. *California Historical Society*, FN-30957.



Corrugated Iron House, adapted for California the Colonies and other parts, which can be made two or three stories high.



San Francisco Panorama, panel 2 of 5, 1864, Carleton E. Watkins. *California Historical Society*.

Initially, settlers resorted to temporary or makeshift solutions such as tents or lean-tos, and shacks. Abandoned ships, still afloat or grounded on the tidal flats, often provided shelter or raw materials, and even served as first stories for larger buildings. Prefabricated buildings, made of wood or metal, were shipped from manufacturers around the world.

INSTANT SETTLEMENTS

Mining camps, port cities, agricultural towns, and commercial centers appeared throughout California following the Gold Rush. These instant settlements required readily available building materials and labor to build structures quickly. A building industry sprang up rapidly to supply the booming economy and population. Because wood was plentiful in the vast virgin forests, lumber was the first building material to be produced industrially in northern California.

Permanent and portable sawmills were estab-

lished throughout the region to prepare the lumber needed to facilitate efficient construction. Two related landscapes emerged as a result of the newly established lumber industry. Within California forests, hillsides once dense with trees stood bare. As trees disappeared from the natural environment, cities and towns constructed primarily of wood appeared throughout the state.

URBAN FIRES

During the 1850s, almost every Gold Rush city was badly damaged by fire. These instant settlements were textbook cases of hazardous conditions. Rows of wooden buildings linked by wooden sidewalks, poorly constructed fireplaces and chimneys, oil and candle lighting, and the dangerous storage of gun powder and lighting oil next door to saloons and residences all contributed to the problem.

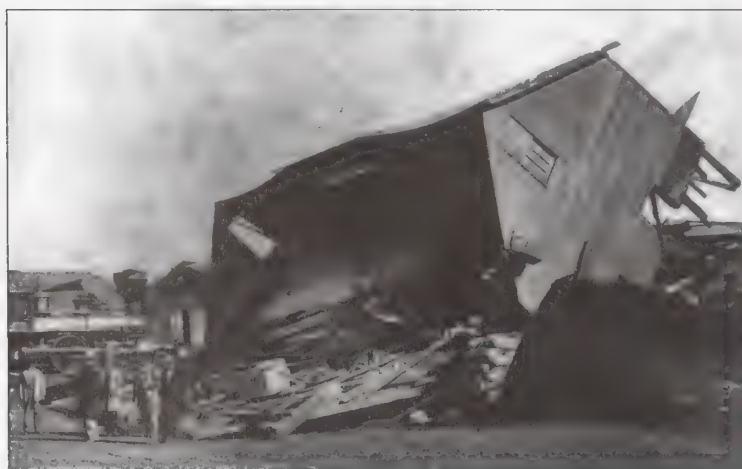
Response to fire danger resulted in the reconstruction of central business areas in fire-resistant materials. Following devastating fires, towns origi-

nally established without any legal codes for construction began enacting laws to require more fire-resistant buildings, and the relocation of hazardous materials away from congested areas. Safety requirements for new buildings included iron shutters over window and door openings, and brick walls with parapets.

NINETEENTH CENTURY EARTHQUAKES

California's built landscape was shaped in part by natural events. Seasonal flooding, for example, led to the construction of buildings over raised basements along the Sacramento Delta. In other places, the brick districts of new cities, which were safer from fire than the wooden towns that preceded them, were more vulnerable to earthquakes.

Following the earthquakes of 1865 and 1868, builders, engineers, architects, and businessmen became conscious of the dangers of earthquakes and responded with a proliferation of new construction techniques. Because masonry buildings tended to break into pieces during earthquakes, techniques were developed to bind the individual bricks and stones into a single unit. These included numerous inventions to reinforce masonry walls with grids of vertical bars and horizontal bands called bond iron. Fear of earthquakes contributed to height restrictions in building and resulted in the persistent use of wood for residences.



Warehouse at Hayward, October 21, 1868, William Shew. *California Historical Society, FN-30947.*



Ransome's Patented Concrete Apparatus for Moulding Wall 1885, Printed by Britton & Rey. *California Historical Society Library, FN-30916.*

INDUSTRIAL AND MILITARY ENGINEERING

During the late-nineteenth century, with the emergence of the modern corporation, the scale of enterprises such as shipping, storage, manufacturing and transportation increased tremendously. The needs of private-sector industry coincided with government interests in expanding military and economic capacity. Both needed large, secure buildings as well as increased control over the environmental elements that affected commerce, travel, and trade.

Engineers trained in public, private, and military universities around the country developed solutions for large-scale industrial projects required by both industry and the government. This was also a period of experimentation in which inventors and business entrepreneurs played an important role in developing new materials and technologies.

BUSINESS EXPANSION: THE DEVELOPMENT OF DOWNTOWN

By the 1870s, business offices began to be concentrated in a new kind of urban community or neighborhood with a new name -- downtown. The packing of office floors in a single building, and the clustering of office buildings in a specialized district reflected the desire of businesses to be located near similar businesses and a variety of services.

The first office buildings were three to six story structures constructed out of fire-resistant materials, generally brick walls, cast-iron or heavy timber columns, and brick or decorative cast-iron fronts. In 1888, construction began on San Francisco's first skyscraper, the Chronicle Building. Like other tall office buildings, it required a structural skeleton of iron and steel, as well as electricity and modern mechanical and communication systems.

The expansion of cities beginning in the late nineteenth century resulted in urban landscapes characterized by a proliferation of new building types and by the concentration of larger, taller buildings that define the cities of today.

TECHNOLOGY, INFRASTRUCTURE AND THE LANDSCAPE

The economic development of mining, hydraulic engineering, hydroelectric power, and transportation during the late-nineteenth and early-twentieth centuries transformed the California landscape. These technologies provided strong ties between urban and rural areas, forging a permanent link between industrial development and population growth in cities, and the natural resources that supported them. The physical features of this infrastructure -- bridges, power lines, dams, aqueducts, and roads -- have become conspicuous features of the modern landscape.

The evolution of materials and technology used to build the infrastructures paralleled those used to construct buildings. Designs for structures required for deep-quartz mining may have provided engineers with ideas for tall steel-frame buildings. The technology of wooden flumes used in hydraulic mining was applied to lumbering and irrigation as well as the design and construction of aqueducts, land reclamation projects, and hydroelectric power.

By the 1920s, the natural rural landscape had become domesticated. The flat alluvial lands of the Central Valley, inland valleys, and around the San Francisco Bay were overlaid with the grid of the federal land survey, crisscrossed by local roads and electric distribution lines, and bordered by irrigation canals and reclamation systems. Today, most of



The San Francisco Chronicle's New Building / Thoroughly Fire Proof, Largest Clock in the World, Entirely Lighted by Electricity, 1889, Printed & Published by Britton & Rey. *California Historical Society, FN-30924.*

rural California is an altered landscape of logged forests, grazed grasslands, irrigated farmlands, and drained wetlands reclaimed for agriculture and development.

1906 DISASTER AND RECONSTRUCTION

The cities and suburbs of the Bay Area underwent striking changes both in building methods and materials following the devastating earthquake and fire of 1906. The combination of these disasters revived old fears and resulted in renewed efforts to build structures that would resist future seismic events. Although fire-resistant construction was well understood, knowledge of earthquake-resistant construction was still in its infancy. This complicated the adoption of new building codes. As late as 1921 the San Francisco building code provided standards for bracing tall buildings against wind, but did not require additional measures for earthquakes.

Despite limitations, rebuilding from the 1906 disaster brought about construction practices that greatly improved the safety of buildings. New regulations changed the face of the urban landscape. Buildings formerly clad in stone were now faced in terra cotta and cast concrete. Streets once dominated by brick walls now included concrete buildings covered with stucco, and there were new taller steel-frame buildings changing the skyline.

BETWEEN THE WARS

Throughout the early-twentieth century, industrial research produced new building and decorative materials. While in the past, developments in architecture and building practice had often been initiated and adopted locally, technological changes and standards of this era became more national in scope. As building technologies were quickly and uniformly adopted, there was an increasing similarity in the use of structures and materials, and in the appearances of buildings throughout California and the United States.

By the time of the construction boom of the 1920s, most significant projects were built by large construction companies relying on organized labor. Complex buildings with sophisticated structural designs and electrical and mechanical systems required workers with specialized skills and equipment. Engineers refined the invisible structural features of buildings such as foundations, reinforcing bars (rebar), steel frames, and fire-resistant materials. Architects experimented with a variety of materials.



Excelsior Wooden Pipe Co., Bending Pipe: 52 Inch Pipe; Morton Cañon Crossing looking West, 1893, photographer unknown. California Historical Society, William Hammond Hall Collection, FN-30922.



View from the Pacific Telephone Building, San Francisco, ca. 1930, Rovere Scott. *California Historical Society*, FN-23065.

als and technology for decoration including terra cotta, artificial stone, and sheet metal.

WORLD WAR II

The impact of World War II on the use of structures and materials in California building was comparable in scope to the establishment of the missions, the Gold Rush, urban fires, and the earthquakes of 1868 and 1906. Old technologies were discarded and new ones adopted to address military needs, wartime housing requirements, and shortages of building materials diverted to the defense industry.

In response to the shortage of building materials, new materials were developed and existing materials such as plywood, concrete block, and aluminum were used more widely. There was also increased experimentation with pre-fabricated buildings and building parts.

The construction that took place between 1942 and 1944 made a lasting impact on the environment. Dozens of large new military bases, major industrial complexes, and vast housing developments dwarfed existing elements of the landscape and set the stage for the rapid construction of automobile suburbs in the 1950s.

Financial Highlights

Fiscal Year 1998

Combined Statements of Financial Position California Historical Society and California Historical Foundation

BALANCE SHEET

	AS OF June 30, 1998	June 30, 1997
ASSETS		
Current Assets		
Cash	\$ 64,560	\$ 47,883
Accounts receivable (net)	8,327	4,300
Grants & pledges receivable	52,000	46,450
Interest receivable	15,405	22,280
Prepaid expenses & other assets	<u>49,530</u>	<u>40,836</u>
Total Current Assets	<u>189,822</u>	<u>161,749</u>
Non-Current Assets		
Investments	5,252,821	5,064,204
Property & equipment (net)	<u>4,033,758</u>	<u>4,169,771</u>
Total Non-Current Assets	<u>9,286,579</u>	<u>9,233,975</u>
Total Assets	<u>\$ 9,476,401</u>	<u>\$ 9,395,724</u>
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable & accrued liabilities	\$ 105,269	\$ 64,905
Line of Credit	<u>25,000</u>	<u>-</u>
Total Current Liabilities	<u>130,269</u>	<u>64,905</u>
Net Assets		
Unrestricted	4,055,833	4,271,998
Temporarily restricted	424,401	424,798
Permanently restricted	<u>4,865,898</u>	<u>4,634,023</u>
Total Net Assets	<u>9,346,132</u>	<u>9,330,819</u>
Total Liabilities & Net Assets	<u>\$9,476,401</u>	<u>\$ 9,395,724</u>

Complete audited financial statements are available from CHS upon request.

Combined Statements of Activities and Changes in Net Assets
California Historical Society and California Historical Foundation

STATEMENT OF REVENUE AND EXPENSES

	YEAR ENDED	
	June 30, 1998	June 30, 1997
Support & Revenue:		
Memberships	\$ 362,229	\$ 320,282
Programs & activities	65,020	28,701
Contributions, grants & bequests	195,854	207,274
Net investment income	2,978	10,971
Volunteer benefits	47,510	60,610
Sales & other revenue	<u>62,413</u>	<u>48,704</u>
Total unrestricted revenue	736,004	676,542
Net assets released from restrictions	<u>491,354</u>	<u>368,522</u>
Total Support & Revenue	<u>1,227,358</u>	<u>1,045,064</u>
Expenses:		
Program services	925,480	658,295
Supporting services	<u>518,043</u>	<u>489,994</u>
Total Expenses	<u>1,443,523</u>	<u>1,148,289</u>
Increase (decrease) in unrestricted net assets	<u>(216,165)*</u>	<u>(103,225)*</u>
Changes in temporarily restricted net assets:		
Grants and contributions	272,602	341,332
Investment income	17,032	10,972
Net assets released from restrictions	<u>(290,031)</u>	<u>(168,577)</u>
Increase(decrease) in temporarily restricted net assets	(397)	183,727
Changes in permanently restricted net assets:		
Investment income	176,299	169,705
Unrealized gains on investments	147,654	503,441
Reinvested capital gain on sale	103,704	63,400
Grants and contributions	5,541	7,590
Net assets released from restrictions	<u>(201,323)</u>	<u>(199,945)</u>
Increase in permanently restricted net assets	<u>231,875</u>	<u>544,191</u>
Increase in net assets	15,313	624,693
Net assets at beginning of year	<u>9,330,819</u>	<u>8,706,126</u>
Net assets at end of year	<u>\$ 9,346,132</u>	<u>\$ 9,330,819</u>

*non-cash depreciation expense (\$149,709 in FY98, \$150,908 in FY97) is included in supporting services and is reflected in these figures



This replica of the new Los Angeles city hall, made from oranges, was displayed at the State Citrus Fair in the 1890s. *California Historical Society, Title Insurance and Trust Photo Collection, Department of Special Collections, University of Southern California.*

Edited by James J. Rawls

Los Angeles A to Z: An Encyclopedia of the City and County.

by Leonard Pitt and Dale Pitt. (Berkeley: University of California Press, 1997, xix, 605 pp., \$34.95 cloth.)

Reviewed by Martin Schiesl, professor of history at California State University, Los Angeles, and editor of the 1997 special issue of *California Politics and Policy* entitled "The California of the Pat Brown Years: Creative Building for the 'Golden State's' Future."

There are few urban centers in the United States with a more complex and dynamic story than Los Angeles. Leonard and Dale Pitt, drawing upon their deep personal knowledge and a wide range of primary and secondary sources, provide an extremely valuable and enlightening reference work on the city's history, growth and development. The volume contains 2,000 entries filled with extensive material on people, institutions, events, and places.

Certain entries concentrate on general topics such as ethnicities, industrial operations, the natural environment, education, and political activity. The Pitts skillfully trace the evolution of these times and relate how they have sharply changed during different time periods. They also devote considerable attention to numerous specific topics. Among the entries are racial and religious groups, athletic teams, business organizations, cultural and artistic institutions, and governmental entities. The authors give insightful descriptions and valuable information, much of which is not available in published histories of Los Angeles. Some of the entries on city and county departments include too many details and could be condensed into fewer categories. There should also have been a little more analysis in a few entries, especially the one on the Pacific Electric Railway Company. The Pitts write that interurban rail traffic declined in the 1930s and 1940s largely because of a conspiracy among car manufacturers and oil companies. It was the immense popularity of the automobile, however, that was mostly responsible for the demise of the railway system. Los Angeles residents suffered a number of inconveniences with mass transit and found the automobile to be a much more comfortable and efficient means of transportation.

The most colorful items in the encyclopedia are the sketches of various men and women who occupy prominent places in the city's historical pageant. Among them are movie stars, newspaper publishers, religious leaders, writers, architects, and

public officials. The Pitts write with considerable elegance about the activities of these people and furnish intriguing descriptions of their elegance about the activities of these people and furnish intriguing descriptions of their notable achievements. Some important individuals have been overlooked. One example is black legislator Augustus F. Hawkins of Los Angeles. Hawkins stood on the front lines in the struggle for racial equality and played a major role in the drafting of civil rights legislation as a California state assemblyman from 1935 to 1962 and a member of the United States House of Representatives from 1963 to 1989.

Another excellent feature of the general reference is the scattering of delightful quotes throughout the volume from distinguished visitors, famous writers, and leading journalists. The Pitts also provide over 300 illustrations, encompassing photographs, tables, charts, and maps. In addition, there are superb appendixes which contain, among other things, information on the dates of municipal incorporations in Los Angeles County and the organization of the city and county governments. The Pitts' encyclopedia will serve as an indispensable source for scholars in history, urban studies, and several other academic fields and should give the general public a wonderful tool with which they can acquire a far better knowledge of Los Angeles's highly diverse and fascinating history.

Books sent to *California History* for review that are not reviewed, but pertain to the collection, are catalogued in the California Historical Society library.

Founded by the Bay: The History of the Macaulay Foundry, 1896–1996.

By Anthony Kirk. (Berkeley: Macaulay Foundry, 1996, v, 86 pp., \$. paper.)

Reviewed by David J. St. Clair, professor of economics, California State University, Hayward.

Henry C. Macaulay arrived in San Francisco in 1891, a generation removed from the pioneering iron men who had established San Francisco as the center of industry on the West Coast. The Macaulay Foundry operated in San Francisco until relocating in Berkeley after the 1906 earthquake. From its new home, Macaulay has been producing cast metal products to order for more than a century. Anthony Kirk has written a history of one of the West's largest and most durable foundries, from its inception in the late-nineteenth century, through the trials and tribulations of earthquakes, wars, depressions, environmental concerns, and the ever-changing face of California industry and technology.

A hundred years of history, squeezed into eighty-six amply illustrated pages does move quite quickly. Readers expecting a comprehensive history of the company or the foundry business may be disappointed with the coverage and depth accorded some topics. However, this should not detract from the merits of this valuable study.

Kirk does a fine job of chronicling how Macaulay developed in response to the demands of its customers, and to changes in metal casting technology. Central to Macaulay's story are the long-lasting relationships that it maintained with such firms as the Byron Jackson Iron Works (premier maker of centrifugal pumps and dredges), the Hall-Scott Company (aircraft and truck engines), and Utah Construction and Mining. An iron foundry's fortune is inevitably linked with the fortunes of its industrial customers. In turn, the survival of these firms depended on their ability to create innovative products for the rapidly changing California economy. As markets and customers changed, Macaulay provided high-quality products and solutions to metalworking problems. In the process, Macaulay created technologies that were transferable to other industries and products. For example, foundry techniques and alloys developed by Macaulay for water pumps and dredges found their way into petroleum pumps, aircraft engines, marine engines, agricultural machinery, and truck engines. Later, highly alloy castings opened up whole new markets for Macaulay at a critical time when its traditional business was waning.

The importance of machine shops, foundries, and other "core" industrial enterprises in fostering technological convergence has long been appreciated. Kirk's history of the Macaulay Foundry adds to our knowledge of the California version of this process. Likewise, Macaulay's strategy of emphasizing product design, quality, service, and market flexibility has been a hallmark of California industry for over a century and a half.

Anyone interested in the development of California industry, and especially its nineteenth-century roots, will benefit from this book. In addition, the entrepreneurial decisions of an industrial firm that has managed to thrive for more than a century are of interest in their own right. Equally important, Kirk has written the kind of company history that is needed in order to better tell the story of California's industrial dynamism.

"The California of the Pat Brown Years: Creative Building for the 'Golden State's Future,' California Politics & Policy (1997 Special Issue).

By Martin Schiesl, ed. (Los Angeles: Edmund G. "Pat" Brown Institute of Public Affairs, 142 pp., \$15.00.)

Reviewed by Eugene C. Lee, professor of political science emeritus, University of California, Berkeley.

In 1996, several months after Pat Brown's death, a conference was held at Cal State L. A. by the institute bearing his name to review his governorship and the times in which it took place. The invited conference presenters, with a few exceptions, based their remarks on manuscripts subsequently submitted for publication. This edited collection is the result.

The sixteen contributions vary in length, style, and substance. Several of the papers are based on original research, while others are primarily drawn from secondary sources. The volume opens with brief vignettes of Pat Brown, the person and the personality, as seen by his daughter Kathleen and three close associates. In sum, they give reality to the Pat Brown of memory—a warm-hearted, pragmatic politician, who believed in a positive role for government and provided leadership to support his beliefs.

The papers that follow can be divided into those that deal with specific programs and policies that dominated the Pat Brown governorship—water, transportation, higher education, civil rights, and government reorganization—and, secondly, the demographic, social, and political context in which these events took place.

Substantial articles include Harvey Grody's detailed account of the events of 1959–60 that resulted in the creation of the California Water Project and the \$1.75 billion bond issue that funded it. Brown emerges as the lead player in formulating the details of water policy and in overcoming legislative and voter opposition. In contrast, with respect to the development of California's historic Master Plan for Higher Education, John Douglass describes Governor Brown as neither an "architect" or



Edmund G. "Pat" Brown served as district attorney of San Francisco and attorney general of California before being elected governor in 1958. Four years later he defeated Richard Nixon and won a second term, but lost to Ronald Reagan in 1966. Courtesy Bancroft Library.

...an instigator... [but as] a broker—a forceful political leader who demanded a pragmatic plan," a broker with a big stick, which he threatened to use if the necessary compromises could not be reached.

Other important essays in the collection deal less with program and policy and more with politics. Jackson Putnam reviews the relationship between Pat Brown and Jesse Unruh, "ecological twins" despite some bitter personal differences. Matthew Dallek, "Up From Liberalism," and Denise Spooner, "The Revitalization of the Right," provide contrasting but complementary views of the changing political world that began with Brown's overwhelming electoral victory in 1958 and his defeat to Ronald Reagan in 1966. Both are drawn from the author's doctoral research, here made accessible to the general reader.

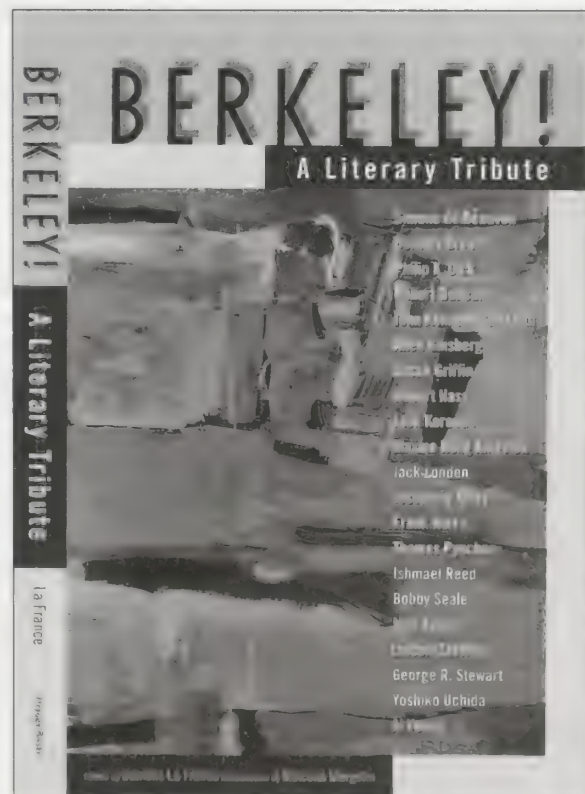
In their totality, these and other essays provide valuable and original insights into the Pat Brown years and his place in them. The collection is not, and was not intended to be, a comprehensive review of either the man or the era. But there is something for both general and specialized students of California history, who will emerge from their reading with a renewed understanding and appreciation of the contributions of Governor Edmund G. "Pat" Brown. The institute has done a commendable job of honoring its namesake.

Berkeley! A Literary Tribute.

Edited by Danielle La France. Introduction by Malcolm Margolin. (Berkeley: Heyday Books, 1997, xv, 240 pp., \$14.95 paper.)

Reviewed by William J. Rorabaugh, professor of history at the University of Washington, and author of *Berkeley at War: The 1960s*.

For a long time the city of Berkeley has provided its many resident writers with grist for the literary mill. This anthology gathers musings about Berkeley over the past century from forty-seven authors ranging from Jack London to Jack Kerouac, from Bobby Seale to Julia Vinograd. The materials, which begin with Bishop George Berkeley's poem that inspired the city's name, are shrewdly and attractively arranged more or less chronologically and thereby show the shifting concerns of different eras. The interspersing of prose and poetry is charming, but whereas the poems, including excellent ones by Jack Spicer, Robert Hass, and Janice Gould, are intact, the prose pieces are



Courtesy Heyday Books

of necessity usually extracts that enchant but too often leave a sense of incompleteness such as that experienced at a wine tasting. Memorable longer items include John Kenneth Galbraith's comical sketch of life as a graduate student in Berkeley in the 1930s, Suzanne Lipsett's riveting memoir of rape, the mystery writer Anthony Boucher's story about Professor Wolfe Wolf the werewolf, and Alice Kahn's hilarious tour through North Shattuck's Gourmet Gulch in the 1980s.

It is surprising how frequently and how well these authors have captured the spirit of Berkeley. The city's true character was shaped in the early years of this century during its suburban boom, when thousands of middle-class, brown-shingled houses were built. Progressivism, with its optimistic, can-do spirit and faith in government and education as engines for civic improvement, is a theme coursing throughout Berkeley's past. However, as these writings show, this belief has been combined with fascination by nature and cultural pluralism. While the fog dampens optimism, the hills' wildness suggests spiritual transcendence as one looks down upon the man-made world from Tilden Park. The adjacent Oakland ghetto and generations of immigrants have had their impact, too. In an insightful short essay, Raquel Scherr, daughter of the *Berkeley Bark* publisher Max Scherr and his Mexican-born wife, describes how her non-English-speaking mother tried to communicate with a fellow resident who spoke only Japanese. A guide to the city's history, this book also presents many younger Berkeley writers, especially poets, who deserve to be better known, includes useful biographical sketches, and reproduces one of Richard Diebenkorn's Berkeley series paintings on its cover.

Roxana's Children: The Biography of a Nineteenth-Century Vermont Family.

By Lynn A. Bonfield and Mary C. Morrison (Amherst: University of Massachusetts Press, 1996, xvii, 267 pp., \$50.00 cloth, \$19.95 paper.)

Reviewed by Linda Pomerantz, professor of history and interdisciplinary studies at California State University, Dominguez Hills.

This charming and informative book follows the fortunes of a Vermont farm family through most of the nineteenth century, using as its central source the many letters exchanged by members of the family as they traveled, settled, lived, and died in various parts of the United States. Along the way the reader becomes acquainted with the life of the matriarch, Roxana Brown Walbridge Watts (1802–1862), her two husbands, her eleven children and step-children, and their spouses and descendants, adding up to a remarkable group portrait of a family

whose collective experience encompasses many of the major events and trends of nineteenth-century U.S. history.

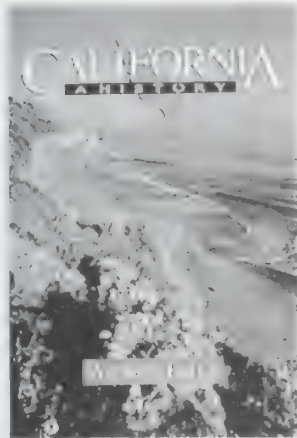
Of Roxana's eleven children and step-children, five permanently left Vermont and settled elsewhere, three in the Midwest and two in California. Two ore returned to Vermont after unsuccessful attempts to settle in California, while two others were lifelong Vermonters. Three of Roxana's children were sacrificed to a larger cause: Dustan S. Walbridge, who perished of wounds suffered during the Civil War, and two daughters who gave up their personal dreams for the sake of helping their family members.

Of special interest to readers of *California History* are the glimpses of pioneer life in California in the later part of the nineteenth century. Two daughters, Chastina Walbridge Rix and Clarissa Walbridge Rogers, made the journey to California and raised families in San Francisco and, more briefly, in Petaluma. The picture that emerges from their letters and diaries is one in which life was hard for settlers, whether in urban San Francisco or rural Petaluma, and the fabled promise of easy riches of the gold fields and an expanding economy did not necessarily materialize for many hopefuls. Chastina died at a relatively young age, and her son, Julian Walbridge Rix (1850–1903), was raised by Chastina's sister and then by relatives in Vermont. Julian Rix was a well-known painter who is often considered a California watercolorist, even though he returned to the East while still a young man and lived out his life in New Jersey.

Although some letters are sparing of the type of personal information we need to provide a more intimate portrait of individual family members, others are startling in their recording of intimate matters. The authors, one an archivist and the other a writer and teacher who is a great-granddaughter of Roxana, have done a masterful job in fleshing out the letters and diaries with other primary source materials on local and family history in Vermont and elsewhere. In all, this reader finished the book sorry that the story was over, and wishing to know still more about the individual members of this remarkable family and its descendants. A sequel would be definitely be in order, and would further enhance this unique contribution to the field of family history.

Harlan Davidson

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Charles N. Johnson, Librarian, Ventura County Museum of History and Art

Davis, Margaret Leslie. *The Dark Side of Fortune: Triumph and Scandal in the Life of Oil Tycoon Edward L. Doheny*. Berkeley: University of California Press, 1998. \$35.00 (cloth) ISBN: 0-520-20292-9. Order from: University of California Press; 2120 Berkeley Way; Berkeley, CA 94720.

Driesbach, Janice T., Harvey L. Jones, and Katherine Church Holland. *The Art of the Gold Rush*. Berkeley: University of California Press, 1998. Published in association with the Oakland Museum of California and the Crocker Art Museum, Sacramento. (This catalog, published in celebration of the sesquicentennial of the 1848 discovery of gold at Sutter's Mill, shows the vitality of the arts in the Golden State during the latter nineteenth century and documents the dramatic impact of the Gold Rush on the American imagination.) \$50.00 (cloth) ISBN: 21431-5. Order from: University of California Press; 2120 Berkeley Way; Berkeley, CA 94720.

Glasrud, Bruce A. *African Americans in the West: A Bibliography of Secondary Sources*. Alpine, Tex.: Center for Big Bend Studies, 1998. \$20.00 (paper) shipping and handling \$3.00 for first book and \$.50 for each additional book. Order from: Center for Big Bend Studies; Sul Ross State University; Post Office Box C-71; Alpine, Texas 79832.

Halberstadt, April. *The Willow Glen Neighborhood: Then and Now*. San Jose: Renasci, 1997. \$11.95 (paper) ISBN: 0-9641107-1-0. Order from: Renasci; Post Office Box 28338; San Jose, CA 95159-8338.

Haller, Stephen A. *Post and Park: A Brief Illustrated History of the Presidio of San Francisco*. San Francisco: Golden Gate National Parks Association, 1997. \$9.95 (paper) ISBN: 1-883869-23-4. Order from: Golden Gate National Parks As-

The California Checklist provides notice of publication of books, pamphlets, and monographs pertaining to the history of California. Readers knowing of recent publications including reprints or revised editions that need additional publicity, are requested to send the following bibliographical information to the Checklist Editor for this list: Author, title, name and address of publisher, date of publication, price, binding (cloth or paper), International Standard Book Number (ISBN), and order address. Checklist information should be mailed to: Charles N. Johnson, Checklist Editor, Ventura County Museum of History and Art, 100 East Main Street, Ventura, CA 93001.

sociation; Fort Mason, Bldg. 201; San Francisco, CA 94123.

Holliday, J.S. *Gold Fever: The Lure and Legacy of the California Gold Rush*. Berkeley: University of California Press, 1998. Cloth, ISBN: 0-520-21401-3; paper, ISBN: 0-520-21402-1. Enquiries to: University of California Press; 2120 Berkeley Way; Berkeley, CA 94720

Houghton, Eliza P. Donner. *The Expedition of the Donner Party and Its Tragic Fate*. Lincoln: University of Nebraska Press, 1997. Reprint ed. \$16.00 (paper) ISBN: 0-8032-7304-5. Order from: University of Nebraska Press; 312 North 14th Street; Lincoln, NE 68588-0484.

Levy, JoAnn. *Daughter of Joy: A Novel of the Gold Rush San Francisco*. New York: Forge, 1998. \$23.95 (cloth) ISBN: 0-386502-3. Order from: Forge/Tom L. Herty Associates; 175 Fifth Ave.; New York, NY 10010.

Lick, Sue Fagalde. *Stories Grandma Nell Told: Portuguese Women in California*. Berkeley: Heyday Books, 1998. \$17.95 (paper) ISBN: 1-890771-05-8. Order from: Heyday Books; Post Office Box 9145; Berkeley, CA 94709.

Lynch, Robert M. *The Sonoma Valley Story: Pages Through the Ages*. Sonoma: Sonoma Index-Tribune, Inc., 1997. \$29.95 (cloth) ISBN: 0-9653857-0-1. Order from: Sonoma Index Tribune, Inc.; Post Office Box C; Sonoma, CA 94565.

Matsumoto, Valerie and Blake A. Mendinger, eds. *Over the Edge: Remapping the American West*. Berkeley: University of California Press, 1998. \$48.00 (cloth) ISBN: 0-520-21148-0; \$19.95 (paper) ISBN: 0-520-21149-9. Order from: University of California Press; 2120 Berkeley Way; Berkeley, CA 94720.

Montgomery, Gayle, and James W. Johnson. *One Step from the White House: The Rise and Fall of Senator William F. Knott*. Berkeley: University of California Press, 1998. \$29.95 (cloth) ISBN: 21194-4. Order from: University of California Press; 2120 Berkeley Way; Berkeley, CA 94720.

Nalty, Damon G. *The Browns of Madrona: Family of Abolitionist John Brown Buried in Madrona Cemetery, Saratoga, California*. Saratoga: Saratoga Historical Foundation, 1996. \$10.00 (paper), plus \$1.00 postage. (A book about the family of John Brown who came to California following his execution.) Order from: Saratoga Historical Foundation; Post Office Box 172; Saratoga, CA 95071.

instead, Nancy. *The Ferry Building*. Berkeley: Heyday Books, 1998. (An important book celebrating the 100th anniversary of San Francisco's enduring landmark.) \$25.00 (paper) ISBN: 1-88771-12-0. Order from: Heyday Books; Post Office Box 9145; Berkeley, CA 94709.

Enish, Natalie. *Ehrenberg: Goliad Survivor, West Explorer. The travels of Herman Ehrenberg, 1816-1866*. (Includes Ehrenberg's *The Fight for Freedom in Texas in the Year 1836*, translated by Peter Molihauer, with annotations by Natalie Enish.) (California was on the path of Ehrenberg's many travels, and he was murdered near Palm Springs.) Dallas: Texas Heritage Press, 1997. \$29.95 (cloth) ISBN: 0-9620755-1-5. Order from: Texas Heritage Press; Post Office Box 3765; Dallas, Texas 75225.

Enison, Joshua. *A World Transformed: A firsthand Accounts of California before the Gold Rush*. Berkeley: Heyday Books,

1998. \$15.95 (paper) ISBN: 1-890-771-13-9. Order from: Heyday Books, Post Office Box 9145; Berkeley, CA 94709.

Paher, Stanley W. *Early Mining Days: California Gold Country*. Edited by Mary L. Van Camp. Las Vegas, N.V.: KC Publications, 1996. \$7.95 (paper) ISBN: 0-88714-111-0. Order from: KC Publications; Post Office Box 94558; Las Vegas, NV 89193-4558.

Santos, Robert L. *Stories of California Azorean Immigrants: An Anthology of Life Sketches*. Denair, Calif.: Alley-Cass Publications, 1998. \$24.00 (paper), includes tax, postage and handling. Order from: Alley-Cass Publications; c/o Bob Santos; 3912 Tanager Drive; Denair, CA 95316.

Schuparra, Kurt. *Triumph of the Right: The Rise of the California Conservative Movement, 1945-1966*. Armonk, N.Y.: M.E. Sharpe, 1998. \$60.95 (cloth) ISBN: 0-7656-0277-6. Order from: M. E. Sharpe

Inc., 80 Business Park Drive, Armonk, NY 10504.

Shepherd, Alice. *In My Own Words: Stories, Songs, and Memories of Grouse, My Kibbin, Wintu*. Foreword by Frank LaPena. Berkeley: Heyday Books, 1997. \$11.95 (paper) ISBN: 0-930588-85-1. Order from: Heyday Books; Post Office Box 9145; Berkeley, CA 94709.

Sigerman, Harriet. *Land of Many Hands: Women in the American West*. New York: Oxford University Press, 1997. \$24.95 (cloth) ISBN: 0-19-509942-7. Order from: Oxford University Press; 2001 Evans Road; Cary, NC 27513.

Williams, James C. *Energy and the Making of Modern California*. Akron, Oh.: University of Akron Press, 1997. [California—Gold Discoveries]. \$49.95 (cloth) ISBN: 1-884836-15-1. Order from: University of Akron Press; 374B Bierce Library; Akron, Ohio 44325-1703.

A History of California Currency



1769

▼
Beads
to
trade



1849

▼
Gold
rushes
in



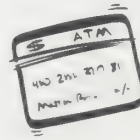
1886

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Foreign
coins flood
market



1929

▼
Food
is as good
as gold



1978

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Advent
of the
ATM



1996

▼
Bills
are
redesigned

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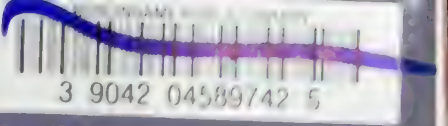
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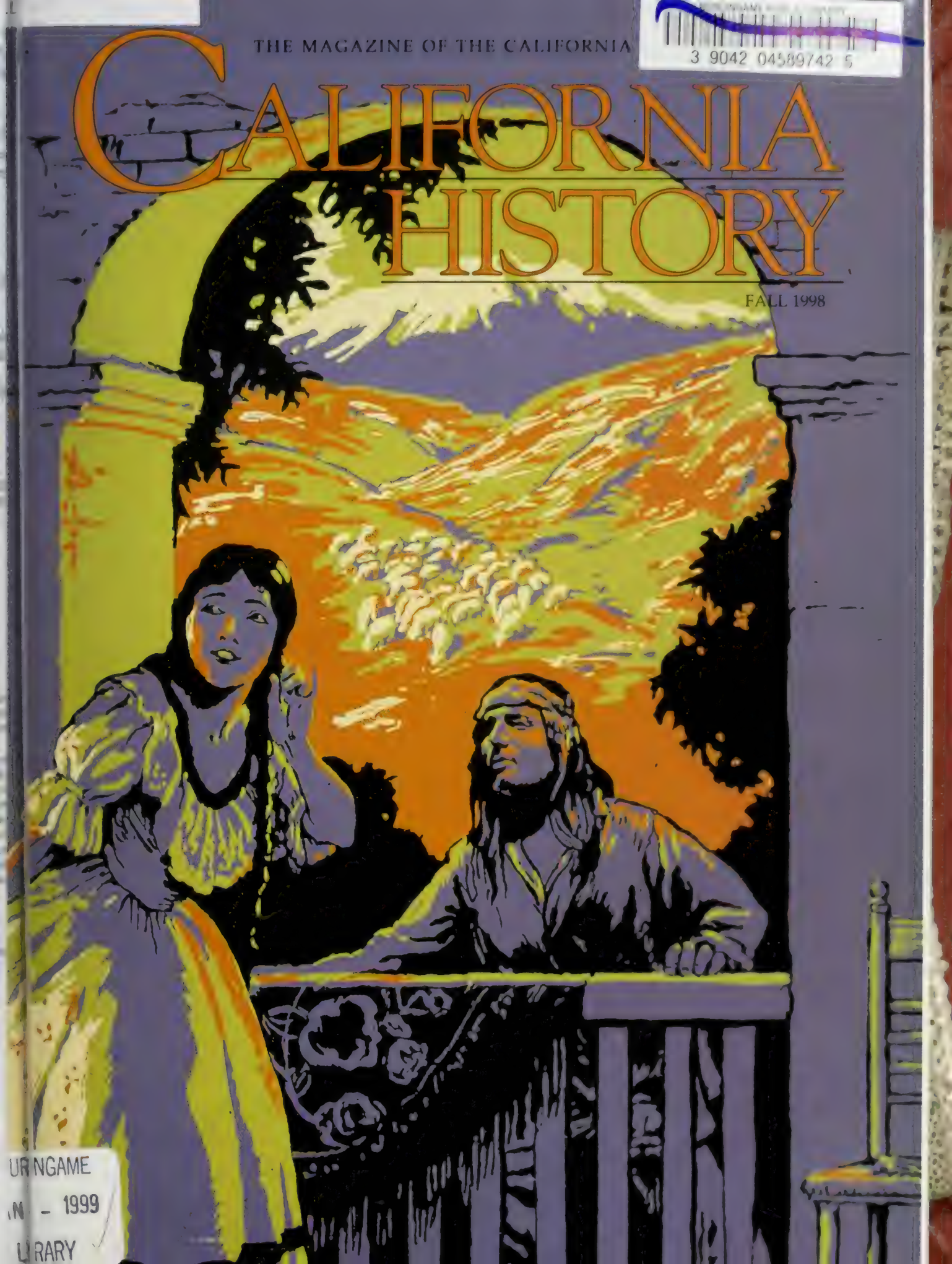
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THE MAGAZINE OF THE CALIFORNIA



CALIFORNIA HISTORY

FALL 1998



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Sunset Magazine's Centennial, 1898–1998

Sunset, "the Magazine of Western Living," celebrated its centennial anniversary in May 1998 with a special issue filled with reflections on the magazine's considerable impact on western gardening, architecture, interior design, and cuisine over the past century. Today Sunset is the West's most successful regional magazine, boasting a paid circulation of 1.5 million and a series of popular books bearing the Sunset imprint.

It began quite humbly, however, as a sixteen-page promotional pamphlet first published by the Southern Pacific Railroad in May 1898. Named for the Sunset Limited, a posh train that ran between San Francisco and New Orleans, the little magazine was designed to lure tourists into Southern Pacific-owned trains and its Hotel del Monte resort in Monterey (not to mention to help combat the railroad's tyrannical reputation). The first issue made clear its goal: "the presentation, in convenient form, of information concerning the great states of California, Oregon, Nevada, Texas, Louisiana, and the territories of Arizona and New Mexico—a rich and inexhaustible field over which the dawn of future commercial and industrial importance is just breaking."

In 1902, Charles Sedgwick Aiken took over Sunset's editorship and expanded the magazine's focus to include more fiction and poetry. Aiken, envisioning Sunset as a west-coast version of *Atlantic Monthly*, began featuring essays and art by the West's leading painters, politicians, scientists, and writers (including Herbert Hoover, Stanford president David Starr Jordan, Jack London, Mary Austin, Dashiell Hammett, Sinclair Lewis, and evangelist Aimee Semple McPherson). That same year artist Maynard Dixon began his celebrated thirty-two-year association with Sunset, providing evocative covers and illustrations that captured, in his words, "the poetry and pathos of [the] life of Western people seen amid the grandeur, sternness, and loneliness of their country."

In its literary format, Sunset proved popular with writers but less so with subscribers, and the Southern Pacific sold the magazine to its editorial staff in 1914. Financial troubles continued until 1928, when the Lane family (Laurence, his wife Ruth, and their sons, Bill and Mel) bought Sunset and recast it as a guide to casual western living. Typical articles included "How to Select Fishing Tackle," "Are You Satisfied with Your Garden?," and "The Lure of the Patio." A new emphasis on travel, home remodeling, and cooking largely replaced the weighty political essays and literature, although Sunset did remain a strong proponent of protecting the West's natural environment.

Over the next fifty-two years, the Lane family turned the renewed Sunset into the pre-eminent magazine of the West, eventually printing five separate regional editions of each issue to better provide local travel and gardening tips. The magazine was partially responsible for the popularity of two current western fixtures: the home barbecue and the California ranch style house. Its art covers gave way to vibrant color photography in the 1930s, often celebrating the unique natural beauty of Yosemite and other western parks. The Lanes, open to new ideas, boldly integrated culinary and architectural influences from



Sunset magazine booth featuring two Maynard Dixon paintings, part of the Southern Pacific-Union Pacific exhibit at the London Exposition of 1909. The signs on the wall proclaim, "Persons who are interested in acquiring information regarding the Pacific Slope of the United States or its great South West may obtain literature here Free of Cost. If you have friends who are contemplating a visit to the United States, [leave?] their names & addresses. Valuable Literature will be sent them Free of Cost." Editorial Office photo.

Japan, the Pacific Rim, Mexico, and Native American culture into Sunset's vision of western living.

The Lanes sold Sunset to Time Warner Publications, Inc., in 1990, but "the Magazine of Western Living" continues to provide its five million monthly readers with tips and trends on home, food, garden, and travel. To quote its anniversary issue, "In May 1998, as in May 1898, Sunset's West is the most amazing place on earth, and each month we attempt to do justice to its beauty, its wonder, its diverse and creative people."

Sunset Magazine: One Hundred Years of Western Living, 1898–1998, an exhibit documenting the magazine's first century, will be on display at the California Historical Society from September 11, 1998, to January 2, 1999. It chronicles the magazine's influence on American gardening, cooking, travel, and architecture, and includes original cover paintings by Maynard Dixon, Maurice Logan, and Thomas Hill. The exhibit is free and open to the public Tuesday through Saturday from 11 A.M. to 5 P.M.

JOSHUA PADDISON
Editorial Assistant
California History

FRONT COVER: The 1928 Ramona Pageant poster (detail), featuring Ramona and Alessandro, announces the annual outdoor drama, staged in Hemet, California. Nineteen-ninety-eight marks the pageant's seventy-fifth anniversary, making it the oldest ongoing theatrical event in the United States. Courtesy of the Ramona Pageant Association. BACK COVER: Inner Court, Ramona's Marriage Place, Old Town, San Diego, retouched postcard. Thomas Getz's postcards promoting Old Town, San Diego, as the site of the fictional Ramona's wedding added to the trail of evidence that both supported and confused the legend. Getz acquired extensive Ramonana ephemera, often relabeling postcards of both Rancho Camulos and Rancho Guajome to imply that they were actually views of the Old Town, San Diego, site. This exotic, verdant scene, with Old Glory affixed atop the red-tiled roof, shows original landscaping after Getz transformed it into an Edenic paradise thought to be more pleasing to tourists. Courtesy James A. Sandos.

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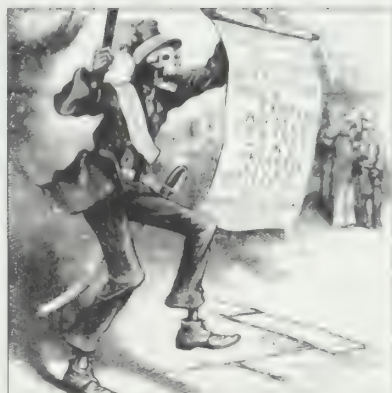
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Carey McWilliams, ca. 1945. Born in Colorado in 1905, McWilliams was a graduate of the University of Southern California. He enjoyed a lengthy career as a Los Angeles attorney and writer, as well as state commissioner of housing and immigration in the late 1930s. He left California in the 1940s to write for *The Nation*; he served as its editor from 1955 to 1975. His major works include *Factories in the Field* (1939), *Ill Fares the Land* (1942), *North from Mexico* (1949), *Southern California Country* (1946), and *California: The Great Exception* (1949). He died in 1980. Courtesy collection of Carey McWilliams, Jr.

California Studies and California Politics:

Reflections on the Sesquicentennial

by Jeff Lustig

California Studies Conference,
Los Angeles, February 6, 1998

I want to thank the California Studies Association for this award.* It belongs of course to the whole group of people who have worked over the last ten years to organize California-oriented courses and research, to create this association, and to organize the conferences. It has been a lively and engaged group of scholars and writers, professors and poets, people from within and outside the university, with whom it has been a real pleasure to work.

I am somewhat daunted to receive this award. Carey McWilliams epitomized the kind of scholar, social activist, and thinker to which those of us who developed California studies courses and organized this association ten years ago aspired. In fact we dedicated our very first California Studies Conference in 1989 to the memory and legacy of Carey McWilliams.

His work was distinguished by a number of things: its remarkable breadth, the depth of his insights, the sheer quantity of his work, and its accessible—deceptively accessible—prose. Phrases of his linger in readers' imaginations. Throw-away lines spark entire dissertations:

"In California the soil is really mined, not farmed."

"To understand California we need a sociology of good luck."

"California skipped the frontier phase of land settlement; . . . she sprang at once to full stature."

And this being the anniversary of the Gold Rush:

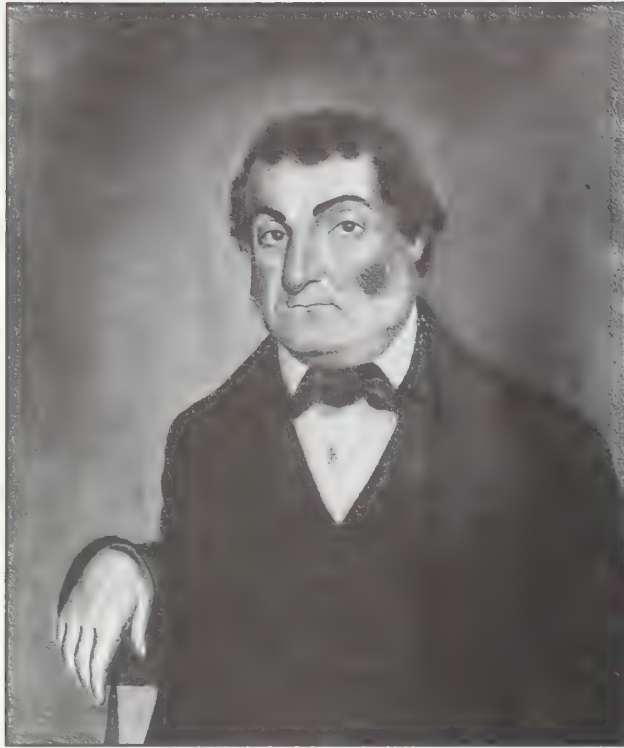
"California was settled by losers looking for a second chance."

*Jeff Lustig, who received the first Carey McWilliams Award of the California Studies Association, gave this address at the 1998 California Studies Association Conference, February 1998, at the University of Southern California, in Los Angeles

I want to say a few words at the beginning about McWilliams's work because I want to try to explain why we have held it in such high regard and why it has proven so durable in its importance. That work, of course, was not limited to those profound and justly acclaimed studies of *Factories in the Field*, of Mexican migration (*North from Mexico*), of internment (*Prejudice*, a book finished while the Japanese were still in the camps), and intolerance (as treated in *A Mask for Privilege*). It also extended to quite extensive public action. McWilliams's name is a ubiquitous presence in the accounts of the time. It crops up recording the Owens Valley story for future scholars, discovering and exposing labor racketeering in Hollywood back-lot unions, preserving the record of the Zoot Suit Riots, defending the unjustly accused in the Sleepy Lagoon Case, serving as State Commissioner of Housing and Immigration. McWilliams could also be counted on to graciously bring in new voices from the sidelines, like that of the Filipino farmworker/poet Carlos Bulosan, author of the beautiful *America Is in the Heart*. And he did all this, remember, outside the academy.

One thing that has always struck me, both about the formal studies and the practical activities, was his unerring eye for the significant fact or issue. It wasn't just any topic he chose to research and address, or any topic that would sell. He consistently identified topics of central and, it turned out, lasting importance. The issues he tackled prove to be the very ones we still wrestle with today—migrant work, water conflict, minorities, the connections between social structure and social intolerance.

There was an obvious politics to all this, though it is usually glossed over. The titles and topics I noted reveal a particular slant on the world—a commitment



José Antonio Carrillo (1796–1862), one-time alcalde of Los Angeles, was one of eight native-born Californios to attend the first California Constitutional Convention in Monterey in September 1849. The constitution the forty-eight delegates hammered out adopted Spanish as an official second language, outlawed slavery, and guaranteed freedom of speech, freedom of religion, and the right to a trial by jury, but denied suffrage to African Americans, Native Americans, and women. It served as California's state constitution until replaced in 1879. *Courtesy California Historical Society/Title Insurance and Trust Photo Collection, Department of Special Collections, USC.*

to tell the hidden histories, to speak for the Other California, to talk about what his friend Louis Adamic titled *Shadow America*. This was not his exclusive focus. McWilliams was also a discerning analyst of mainstream developments—one of the first to discuss the weakness of California political parties, and the first to see the impact of the media on politics, among other things. But he was committed to including minority views, and dissenting views, into the story of California, to pulling down pretensions and unmasking the “masks for privilege” indicated by his title. That took courage, intellectual courage. We should not forget that. There was also a notable freshness and originality to his politics. His was an independent politics. The independence was rooted, I believe, in a commitment, a fidelity, to the truths of his own keen observations.

Consider an example central to his work. During the strife-torn thirties and forties, he and his friend Louis Adamic, a San Pedro harbormaster, gave sustained and insistent attention to the class character of California conflict and social life. This was a state where labor and capital clashed in a particularly stark fashion. (“The Rise of Farm Fascism” is one chapter in *Factories in the Field*). But McWilliams also saw that the social consciousness emerging in the state did not conform to expected class patterns. There was a peculiar quality to it, an anomie about which Nathanael West, Joan Didion, and Thomas Pynchon would also write.

McWilliams's words were best. My favorite passage is the one on L.A. cafeteria life from a chapter in *Southern California Country*, wonderfully entitled, “I’m A Stranger Here Myself.”

In Los Angeles [he wrote in 1946] cafeterias are quasi-public institutions around which a flourishing social life has always revolved. A cafeteria in LA is a place where you go to have a meeting and, perhaps, to eat. . . . The state-society meetings in the cafeteria literally reek of friendliness, . . . [but] it's the falsetto friendliness of people pretending they are not lonely. . . . Actually I suppose that 40% of the Iowans aren't really Iowans at all. In this sense to be Iowan in California is merely another way of confessing one's loneliness.

That is social observation of a high order. McWilliams was helped and sustained in this independence by a larger, diverse circle he had brought together: Bulosan, John Fante, Adamic, Jake Zeitlin—a group I like to think of as the first “California Studies Association.”

Why California Studies?

We have followed their lead now for ten years. California studies courses and centers have been created, and conferences called, that bring together academics and longshoremen, writers and fire captains, bankers and city councilwomen. At the California Studies Conferences we have tried to create an annual public space in which all the voices of the state could be heard. On the tenth anniversary of the first conference, it is fitting, and maybe even edifying, to go back and recall why we started it all, what we were after. Looking back from ten years' vantage, I think that by and large our vision was right. What we are doing is important, and in ways we did not even see at the time.

But in one way I have also come to think, after attending these conferences and reading many of your books and articles, that we were wrong. Explaining this will lead me to some larger reflections about

California Studies and the California State University



A prime architect of California's innovative and much-misunderstood "Master Plan for Higher Education," put into effect by the state legislature in 1960, was the late Dr. Arthur G. Coons (shown left), economist, then president of Occidental College in Los Angeles, chairman of the California Master Plan Survey (1959–1960), and later president of the Coordinating Council for Higher Education in California (1965–68). Strongly within the tradition of education in the liberal arts and sciences, Coons presided over the surveying of the state's educational resources and interests and the designing of the master plan to create an unprecedented, three-tiered structure of public higher educational institutions (University of California, State University System, and Community Colleges) with the charge of providing excellent, free, collegiate education for all qualified Californians. The "Master Plan" deliberately gave a special charge to the State University System, as its "primary function," to provide "instruction in the liberal arts and sciences," which was a decided change from past priorities for the already-existing state colleges, which had emphasized occupational preparation, particularly teacher training. This new emphasis on the basic liberal arts and sciences was central to the mission of the State University System because, in Coons's words, "the problems of modern society are not solely technical; they are basically human" (from Arthur G. Coons, *Crisis in California Higher Education* [Los Angeles: Ward Ritchie Press, 1968]).

For the State University, in fulfillment of its responsibility to the people of the state, an important dimension of that instruction would involve research, individual courses, and programs concentrating on local, California, and regional matters. By the 1980s, according to the important study "California Studies and the California State University" (1988), done by Dr. Jeffrey Lustig at the direction of the chancellor of the State University System, the nearly twenty campuses of the State University possessed immense teaching and research resources, in many academic departments in the humanities, social sciences, arts, and sciences, pertaining to the study of California and its lands and peoples, though there was little campus-wide or system-wide coordination.

The California Studies Association, and its annual California Studies Conferences, developed from the 1988 study as an attempt to provide coordination, a network, and a forum for university and non-university people seeking to understand California. The interdisciplinary field of California Studies was thus a direct outgrowth of the special humanistic mission of the California State University system. *Courtesy Jean Paule, former secretary to Arthur G. Coons and secretary of Occidental College, and now college archivist, Occidental College.*

RICHARD J. ORSI, EDITOR

the character of California politics here in the first weeks of what will be a three-year California Sesqui-centennial celebration. It will lead me to reflect on what I see as the end of our state's first political era.

I wrote a report for the California State University Chancellor's Office ten years ago about the new field of California studies. The meetings I held with many of you preparing that report expressed the reasons many of us started to create interdisciplinary California studies courses and programs in the colleges and universities of the state. There were roughly three sets of these reasons.

The first grew out of the simple desire to provide information and encourage research. These impulses were educational in the basic sense of the word. The point was to provide information about California people, land and water, law, arts, literature, politics, geography, history, and economics. This was desired

both for students' own lives and future careers, and to provide for coherent policy responses to serious problems then emerging. This was the period when we first contemplated the rise of a society in which everyone would belong to a minority, the post-Cold War restructuring of the economy, and the necessity of developing sustainable agriculture, forestry, and urban life.

Providing information like this is particularly important because of another peculiarity about us: most Californians know very little about the state, particularly its history. Maybe it's that cafeteria culture. Californians are people who have left a lot of their baggage behind. They are a displaced people and not sure what they share. There is only a small body of commentaries about our traditions. Only thin fables guide our self-understandings. The state of California burst full-blown into the nation without a

long frontier or any territorial experience, just as Minerva sprang full-blown from the forehead of Jupiter. In fact, Minerva is the central figure on our state seal (curious as this is, remembering that she is the goddess of wisdom).

Or perhaps the reason we know so little about our collective life is because people came to California to find their own wealth, as we remember on this one-hundred-fiftieth anniversary of the start of the Gold Rush, to stake private claims and work their private visions, without having to worry about larger matters. We have had a long history of this not only with miners but with a bumper crop of free spirits, utopians, cultists, cranks, clairvoyants, and quacks. ("Who do you follow?" asked the woman in Nathanael West's 1939 novel *Day of the Locust*. "I mean in the Search for Health, along The Road to Life.") Mike Gold, the New York Communist, came out here in 1927 and saw it even then.

My dentist used to be a Secretary of the IWW. . . . He led a big strike. . . . Now, after ten years in Calif. he produces ectoplasm and tells me he can project his body anywhere he wants to. . . . [I left New York,] a battlefield. But I soon discovered California was a hospital. . . .

These were all people with more important things on their minds than understanding where they lived.

Or maybe, to take a last possibility, the reason Californians know so little about their state is because of the high value we put on forgetting. The other side of our acclaimed taste for innovation and mobility is a necessary forgetting—a routinized, regularized forgetting—of the old country, the old ways, our original intentions. Being a Californian means never having to say "I remember."

Whatever the reason, we wind up without much information about where we live. I grew up in San Diego but never began to understand aridity until I read Wallace Stegner's *Beyond the Hundredth Meridian* fifteen years ago. Most California students emerge from California colleges, paid for by California taxpayers, with little substantive knowledge about or experience with California's land, peoples, world of work, or artistic visions. Professors do not get hired or promoted for knowing about California. My own graduate course in state politics was not labeled "California." The catalogue said "Sub-National Systems." In sum, the first reason we sought to create California Studies as an interdisciplinary field was to correct this general ignorance.

The second reason was educational in a deeper sense. It grew out of changing ideas of what people needed information *about*, and how they acquired a

sensibility capable of seeing that information meaningfully and seeing what was significant in it, as McWilliams had. Those of us drawn to California studies had come to agree that people learn best when what they learn is rooted in their experience, and in what they know and love best. We had come to believe that real knowledge is rooted knowledge. Clifford Geertz explained in a book entitled *Local Knowledge* that "We may think in universals, but we live in the particulars." The goal of California studies in this sense was to help people learn about the social, cultural, and environmental particulars of their lives.

Richard Rodriguez captured the potential excitement of this approach in his account of an early encounter with William Saroyan:

I remember a story he [Saroyan] wrote about a boy who returns to Fresno and stops in front of his house and drinks from a garden hose. Saroyan creates this miracle paragraph about the taste of Valley water. I remember reading that—10 or 11 years old—and the liberation it gave me: Valley water, the water I consumed, the water that was me, was worth writing about. . . . [Y]ou didn't have to grow up in Mississippi or on the Lower East Side.

"The world is places," is the way Gary Snyder put it. "Our relation to the natural world takes place *in a place*, and must be grounded in information and experience." That is the beginning of education. Snyder's is not a laid-back proposal. It is an injunction.

The second set of reasons for taking California studies seriously, then, had to do with counteracting the effects of our displacement and enabling us "to see the universe in a grain of sand" (as Arthur Quinn put it concerning the intent behind his fine study of Point Reyes country, *The Broken Shore*).

The third set of reasons were political. "Political" in the direct sense that California studies was seen as a way of introducing new voices and new perspectives into statewide discussions of critical issues, as McWilliams did. And "political" also in the older sense that California studies people took the job of citizen education seriously. They aimed to fulfill the long-neglected, long-avoided job in California higher education of preparing students to participate in political life and to act in the larger world. This actually marked a return to the original purpose of public education in America, which was to help prepare people for democratic politics. The initial goal of public education was to create a "public" in the first place. It was *not* to provide skills-training for a rapidly-changing job market—the former chancellor of the California State University notwithstanding.

Citizen education does not mean training people to stick to "business as usual" and play preassigned

roles. McWilliams's agenda, which we respect and admire, was not the legislative agenda of his day. Citizen education means enabling people, when necessary, to take a critical and independent perspective. But this cannot be done and you cannot act in the world if you don't first have a map of where you are in it. So our hope in these annual, public conferences was, together, to create such a map, a fuller, more accurate map than those prepared by Hollywood scriptwriters or the state's chambers of commerce.

There was also a fourth reason we began developing California studies work, unstated and perhaps even unconscious at the time. Those of us who began doing California studies wanted to keep the work of people like McWilliams alive—people like Paul Taylor, Dorothea Lange, Wallace Stegner, Ernesto Galarza, Bulosan, and more recently, Larry Crouchett and Larry Margolis.

These were all public intellectuals, people widely informed, deeply rooted in their places, and engaged in different ways in the public world. To realize this is to also arrive at a summary statement of our reasons for doing California studies work. The goal was to help replenish and restock California's supply of public intellectuals, to help students, young and old, newly arrived and settled, enrolled and free-lance, to develop into grounded, informed, and engaged public actors.

And yet, I said, I have also come to think we were mistaken in one of our premises, one of our hypotheses. After a decade more of reading and studying, I have come to think that our problem in California is not exactly one of ignorance. It is not that we don't know about California. We know quite a lot. It is that we often know the wrong things. Ours is a case of *learned* ignorance, of "trained incapacity," in Thorsten Veblen's fine phrase.

We know all kinds of things when you think about it.

We know that Nature is generous, but a little inept. She, for example, put the water in all the wrong places. You may remember Floyd Dominy's remark from the offices of the Bureau of Reclamation: "The unregulated Colorado was a son of a bitch. It was either in flood or in trickle. It was no damned good."

We know that the Yankee conquest of California was an emancipation. A leader of the Bear Flag Rebellion of February 1846 told us so. In the words of the great philosopher and historian Josiah Royce,

the moment was [William] Ide's and he came forward speaking plainly. What were they there for? Was it not for some truly worthy object—namely independence? Nay, said he, we are robbers or we *must* be conquerors.

A pretty clear choice, once you put it like that, so we know ourselves to be high-minded and innocent (undocumented though we were), to be here for independence, and also not to be overly concerned with the fate of our predecessors. We know the Gold Rush as our founding event, to put it differently, not the Treaty of Guadalupe-Hidalgo, the conquest, not the challenge of inclusion and cooperation.

We know also that we are free by a gift of nature and that government is a misfortune, though the West grew up largely as a dependent on federal largesse—from subsidized mail-runs and public lands, to land-title courts, railroad grants, water subsidies, and defense expenditures.

We know, to take a last example, that the recent economic recession is over and "Recovery is At Hand." We know this because our leaders tell us and the headlines announce it, though most of the people living, say, around this university do not know it. In fact, the story of California has always included great disparity. In post-gold-rush times, it was "the chivalry vs. the shovelry." Now again it is increasingly a two-tier society. In the mid-nineties the incomes of the richest fifth of families with children in California rose 30 percent higher than they had been in the mid-seventies, while the average income of the poorest fifth sank by 27 percent. Between 1976 and 1994, family income for the poorest tenth fell by 36 percent in California, while it fell by only 13 percent in the nation. We know the first term of Henry George's *Progress and Poverty* but not the second, the recovery but not the deeper restructuring and on-going production of poverty.

The Political System as Mis-Educator

So, what is the future for California studies, given the weight of this mis-education and the continued training of our incapacity? To answer that, we have to think about the larger sources of that training in the state's political culture. The strongest, most persistent influence on any political culture is its political system. The political system *is*, among other things, a system of education, the primary public education in any society. It determines what counts and what does not, which problems will come up for public attention and which will not over the long run, what will be known and what forgotten.

And our political system in California is currently malfunctioning, as we know. Political commentator Dan Walters pointed out one of its major defects in his concluding address at last year's conference: the lack of real statewide leaders whom citizens themselves chose as their own leaders. This is a failure of

the political system, and a failure of which the unin-
vited candidacies of unknown millionaires is a per-
fect symbol.

But the list of malfunctions is longer. The leaders
do not lead. The voters do not vote. The legislature
seizes up, provoking citizens to turn to initiatives. But
initiatives, intended to arm the people against their
representatives, have been turned by private inter-
ests against the people. Artificial fiscal crises lame
public policy, while electoral campaigns have been
converted by friendly buy-outs into branches of pri-
vate enterprise. The incumbent governor summons
up nativist prejudice against immigrants from the col-
lective unconscious, while his opposition seeks only
to strength the border patrol. In the state's underclass,
a stealth citizenship has developed, and in the upper,
the absentee ballot becomes the main form of citizen
activity. The forms of discourse are debased, the
terms of debate narrowed. And under the auspices
of media talk shows, public deliberation is replaced
by a random, drive-by democracy.

This all affects our education as Californians. Not
that this educational dimension of politics is one
Americans have normally addressed, traditional as
the topic is. But think about it like this: if our politi-
cal process has trouble identifying the state's real
issues, then *we* have trouble recognizing them. If the
legislature's agenda is not the society's real political
agenda and set of problems, we have no way of learn-
ing what the real agenda is. And if the political
process has a demonstrable tendency to fix on small
or artificial issues, then *we* find ourselves focusing on
small or artificial issues, as a regular and systematic
occurrence.

So we have no way of learning, for example, about
the need to build a thousand classrooms a day now
in California or the consequences of failing to do so,
no way, except usually under court order, of respond-
ing to the degradation of the environment, no way
of knowing about the effects of the growing under-
class.

But we have plenty of ways of learning, for exam-
ple, that prison-building is of the highest priority, that
the flight of a few businesses out of state in the early
nineties was a major tragedy, and that taxes are bad
(though California was a high profit/high wage state
in the fifties, when taxes were high). We have many
ways of learning about the budget deficit, but none
about the democratic deficit.

Am I being too hard on the political system? Many
commentators have begun to say that California soci-
ety itself is ungovernable. They describe our grow-
ing fragmentation and balkanization. They compare
us to Sarajevo and Babylon. Mike Davis has written

powerfully of the spatial segregation of races in Cal-
ifornia cities, of gated cities and punitive homeowner
associations, and of architectural "introversions of
public services, the rise of single-issue initiative pol-
itics, the drift toward a rights-oriented jurisprudence,
and the corporate preemption of public functions."

What we've got is a *hyperpluralism*, according to
Richard DeLeon, a situation that makes Sisyphus's
job look easy. Sisyphus only had to push a boulder
up the hill. We have to struggle somehow with gravel.

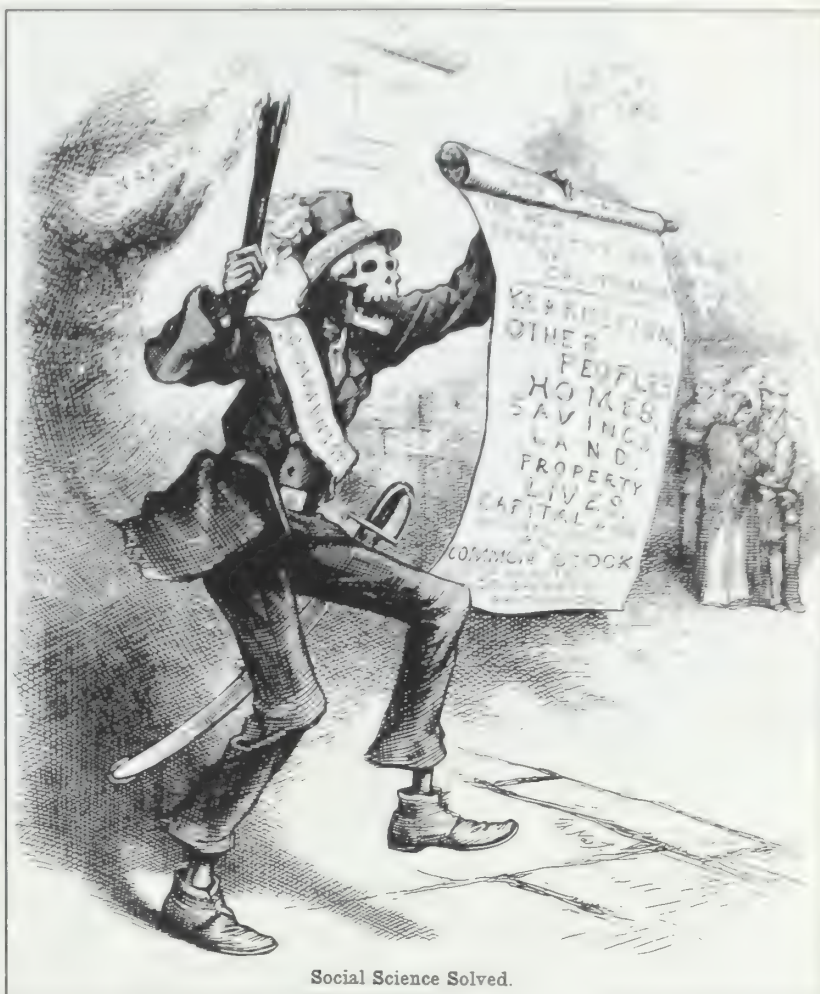
Still, when you think about it, this hyperpluralism
is not an elemental fact. It is not a primary datum.
The design of the state's political system, which we
took over from the nation and perfected with our own
novelties, such as the initiative process and a plural
executive (multiple, directly elected heads of execu-
tive departments), specializes in producing private
interests, helping construct private interests com-
plete with necessary adversaries. You need a private
interest to get standing in this system.

When I study California closely, even "identity,"
that presumably bedrock essence that we think
defines most truly what we are, strikes me as more
flexible and responsive to political context than we
often think. Our political system currently guides eth-
nic and lifestyle groups in the *creation* of private
identities—either as a means of getting into the sys-
tem or as a reaction to being excluded from it. I think
of Asian Americans as an example of the first alter-
native. For it is two-party politics that is fashioning
distinct cultural groups of Vietnamese and Chinese,
Hmong and Koreans, into "Asian Americans." And
I think of the "Chicano" as an example of the second.
The Chicano did not come to California. He is a cre-
ation of California. (So, in fact, is the Okie). The
words of a tenth-grade immigrant quoted in a *Califor-
nia Tomorrow* report a few years ago are instructive.
"I know how to act here now," he explained. "When
I came they would fight and call us wetbacks, here
at school and in the street. Now with our anger we
fight back. They call us wetbacks and we call them
niggers. Everyone hates." Those are the words of
someone *learning* an identity.

The reason blacks and Koreans do not get along in
South Central L.A. is not because of their DNA, or
some essential blackness and Korean-ness. It is
because they are closed out of the structures of priv-
ilege now being recreated, and define their options
in terms of their opportunities—options and oppor-
tunities shaped by political choices.

Now, a large literature in political science promises
that institutions exist that will regather what inter-
ests and background have rent asunder. The parties
are supposed to do this. They are called "aggregative"

In the 1870s, strong protest movements against corporations culminated in an outcry for a new state constitution in order to create a more equitable distribution of power and to regulate large corporate powers such as the Southern Pacific Railroad. Representatives of farm groups and the Workingmen's Party of California (started by firebrand organizer Denis Kearny in 1877) dominated the convention, which met in Sacramento in 1878 and 1879. Although stalemate and the necessity for compromise resulted in only mild restrictions on corporations, conservatives in California and around the country denounced the new constitution as communistic and a threat to private property rights. This political cartoon by Thomas Nast, from *Harper's Weekly* in 1880, articulated this charge. Nevertheless, the constitution was ratified by California voters in 1879, and though much amended, continues to serve as the basis of government today. From Ed Salzman, *The Cartoon History of California Politics* (Sacramento: *The California Journal*, 1978).



devices. But in California it is the parties that have introduced wedge issues into the society to split us apart, and other innovations like targeted campaigns to address different sectors of the population separately. Our parties now work as *disaggregative* devices.

The legislature is also supposed to unify disparate interests, in the course of its deliberations about public policy. But according to most reports the State Assembly and Senate deliberate less and less and are increasingly devoted to insider trading between powerful private interests. Phil Isenberg, a very capable assemblyman who was recently termed-out, explained at a California studies forum a few years ago that "We are largely transactional leaders. What I do is broker deals. . . . Debating right and wrong [does not come easily] to elected officials." Former Senate Majority Leader Barry Keene noted that, during the twenty years he served, the Senate had

increasingly become a place where representatives with private proposals came together, traded favors, and left. It was not a place for deliberation and collaborative dialogue, but for something more like serial monologue.

At the state's one-hundred-fifty-year mark, then, we can see that the ethos of one of our founding events, the Gold Rush, has left clear marks on our institutions. Our constitutional arrangements crystallize many of the principles of that event (though there are exceptions). They privilege private activity and the pursuit of private stakes. They set the main job of government as the untangling of private claims. They are not averse to throwing barriers in the way of outsiders in order to create new privileges—though in more complicated ways now than was true of the Foreign Miner's Tax of the 1850s. They offer little provision for the commons and the future of common opportunity.

In fact, we can see that the extractive approach inherent in the Gold Rush has even been extended to the political process itself. Our parties and politicians now mine—even strip-mine—the citizenry with no thought to the tailings, the residue of frustration and anger, left behind.

So a political system, a means by which all voices could theoretically be brought together along with the voices of different historical eras, a system that could help us confront the tragic dimensions of our history and expand our options beyond William Ide's proposals for California identity, is working instead to accentuate our differences, break up a sense of the whole, and reinforce that thinness of self-understanding that leads us to blame others for our problems.

Now the whole thing may be veering out of control. The Proposition 187 campaign against undocumented immigrants a few years ago produced not only a new scapegoat, a new identity for the Other (as Illegal Alien), but unexpectedly along with it, a new self: the citizen as informer, a citizen anxious to take away his or her neighbor's social services, a fearful citizen thinking no longer about beaches and parks but about a Fortress California and about building a new wall at the border, just when other nations are tearing theirs down.

This is a citizen who by the principles of the Treaty of Guadalupe-Hidalgo might have been a member of a thriving binational, bilingual community, now turning to an exclusivist State to define social membership. Our political system, in sum, is teaching us *dis-connection*. It does not teach us what we need to know to be educated about California, to be citizens and actors in our society.

In its general aspect our political condition resembles nothing so much as an Auto-Immune Deficiency System. It functions analogously to our most tragic and lethal disease, AIDS. It converts our natural powers of resistance, and abilities to recover when stricken, into something that saps our natural resistance and aggravates our wounds, increasing our susceptibility to civic infection.

Time For A New Constitution

So here on the one-hundred-fiftieth anniversary of the Gold Rush and the Treaty of Guadalupe-Hidalgo, and the beginning of three years of the Sesquicentennial, I join and invite you to join those who have called for new constitutional convention for California.

A constitution is not just a set of rules. It establishes a way of living together, of handling common affairs

and creating common abilities. We appear, however, to be in a constitutional moment now, when the established ways of handling those affairs no longer work as expected, the commonality fails, and questions closed off at the beginning force themselves on us again.

From the perspective of California studies, among others, we need a new approach, a re-founding. California's first constitutional convention was called in 1849, in Monterey; the second amidst anti-corporate, anti-Asian agitations of 1878–79. It is time for a third convention and a recurrence to foundations, but *not* for the classical reasons, to put us in touch with the sources of our civic virtue and identity. We need to recur to beginnings for the more troubling reasons that our foundations were poorly laid and it was a case of mistaken identity from the first. That identity I have already discussed. Neither conqueror nor thief will do.

The foundations of state government we took over from the national model. But a political design suited to thirteen states with a citizen population of three-and-a-half million in 1787, cultural homogeneity, and clearer common purposes is not a foundation suited to contemporary California. Many have seen this. Barry Keene has. Dan Walters, a registered Republican, titled his columns a few years back, "Revolt Needed in California" and "Radical Change, Only Hope." And even the conservative London *Economist* has observed "the need for radical reform of [California's] governmental structure."

A Constitutional Revision Commission was formed in 1994, it is true, largely in response to Keene's call for a full convention. It submitted its report a year-and-a-half ago. But that report retreated from the real issues. It gave passing attention to novel ideas like a unicameral legislature and proportional representation, and made the important proposal to dispense with our anomalous two-thirds rule for passing state budgets. But it stuck pretty much to the straight and narrow and to the beaten paths. It did not go far enough. It did not even propose an enlargement of the number of Assembly seats from eighty, the number proposed 150 years ago, when the entire state had only 100,000 people, and reaffirmed in 1879, when it had 860,000 (the current population of a congressional district).

We need a system that is inclusive, that does not continue to spawn new class and exclusivist identities, that will provide better lessons in California studies, and that will help us create the foundations of the common understandings and common purposes a political order needs to function. Americans say that politics is the art of the possible. That also means it

After the federal Immigration Act of 1924 excluded Japanese agricultural workers from California, Filipinos, such as the asparagus workers pictured here, began arriving in substantial numbers to work in Central Valley fields. Victims of sporadic attacks by white farm laborers into the mid-1930s, many Filipinos returned to their native countries in 1935, when, by legislative act, they were granted free, one-way passage home. Not by sheer coincidence did Carey McWilliams's political activism on behalf of farm laborers begin in 1934. *Courtesy Bank of Stockton Archives.*



is the art of seeing unrealized possibilities, of uncovering opportunities that are latent but not generally noted.

Why not take that zany, visionary quality, that proclivity for wild ideas that characterizes California, and devote it to something besides hula hoops and microchips? Why not devote it to something *really* important, like the discovery of those political possibilities? Why not invent new ways of bringing ourselves together to deepen our understandings of our histories and our place? (The place, Gary Snyder told us, will accept all who know her.)

And why not become actors and leaders in inventing those new institutions in our own neighborhoods, communities, and jobs? My reading of California history tells me that that is where important changes have always started, outside the government, at the grassroots.

We need a different direction in California studies, a new political constitution. Maybe here, at the one-hundred-fifty-year mark, it's time to look away from that one founding event, the Gold Rush, to take seriously the principles of the other, the Treaty of Guadalupe-Hidalgo—to look away from conquest, and toward inclusion and cooperation as the guiding principles of our society.

It is Minerva, I mentioned, who holds the central place on our state seal. We may take her as a symbol—not really of wisdom, for wisdom does not emerge full-blown in the real world, as Josiah Royce and Henry George and Mark Twain tried to tell us. But we may take her as a sign at least of our hope for wisdom (and delight in false advertising), a fitting memento of the first one-hundred-fifty-year period of state history.

Hegel once remarked that “the owl of Minerva flies at dusk”—the understanding of an era comes at its close. It was a far-seeing remark. What he did not tell us, but we have discovered in due time, is that that owl would be a spotted one.

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Waikiki Beach, Honolulu, Hawaii, already beginning to feel the effects of elite tourism in 1896. In the twentieth century, however, Hawaii, and particularly Waikiki, was among those places in the world most transformed by massive, popular tourism, as any contemporary photograph of the same beach would testify. *California Historical Society/Title Insurance and Trust Photo Collection, Department of Special Collections, USC.*

Stumbling toward the Millennium: Tourism, the Postindustrial World, and the Transformation of the American West

by Hal K. Rothman

I

Tourism is a devil's bargain, not only in the twentieth-century American West, but throughout the nation and the world. Despite its reputation as a panacea for the economic ills of places that have lost their way in the postindustrial world or for those that never previously found it, tourism typically fails to meet the expectations of communities and regions that embrace it as an economic strategy. Regions, communities, and locales welcome tourism as an economic boon, only to find that it irrevocably changes them in unanticipated and uncontrollable ways. From this one enormous devil's bargain, the dilemma of a panacea that cannot fulfill its promise and alters instead of fixes, flows an entire collection of closely related conditions that complement the process of change in overt and subtle ways. Tourism transforms culture, making it into something new and foreign; it may or may not rescue economies.

As a viable option for moribund or declining places, tourism promises much, but delivers only a little, often in different forms and ways than its advocates anticipate. Its local beneficiaries come from a small segment of the population, "the growth coalition," the landowners, developers, planners, builders, real estate sales and management interests, bankers, brokers, and others.¹ The capital that sustains these interests comes from elsewhere, changing local relationships and the values that underpin them, along with their vision of place. Others flounder, finding their greatest asset and their labor lightly valued. As a result, with tourism come unanticipated and irreversible consequences, unexpected and unin-

tended social, cultural, economic, demographic, environmental, and political consequences that communities, their leaders, and their residents typically face unprepared. This coupling of promise and problem defies the typical mitigation processes of American society, the planning, zoning, and community sanction that historically combine to limit the impact of change.

The embrace of tourism triggers an all-encompassing contest for the soul of a place. As amorphous as is this concept, it holds one piece of the core of the devil's bargain of tourism as a form of living. All places, even untrammelled prairies or rugged deserts, have identities: people see and define them, they have intrinsic characteristics, and they welcome or repel as much based on people's definitions of them as on their innate characteristics. Human-shaped places—cities and national parks, marinas and farms—closely guard their identities, and their people locate themselves within these constructions in ways that give them not only national, regional, and local affiliation but also a powerful sense of self and place in the world. That identity depends on the context of the place, which is linked to its social shape as well as its economy, environment, and culture, and challenges to that identity threaten the status quo, especially when they strain the bonds of community by pitting against one another different elements that hitherto shared alliances. As these bonds fray, sub rosa tensions—there all the time but buried in the fictions of social arrangements—come to the surface, as the impact of change throws the soul of the place, any place, up for grabs.

In the twentieth-century American West, tourism initiates this contest as it regenerates myriad patterns that challenge and reshape the structure of commu-

nities and regions. The initial development of tourism often seems innocuous and harmless: "beneath the radar" of outside interests, lucrative but not transformative. As places acquire the cachet of desirability with travelers, they draw people and money; the redistribution of wealth, power, and status follows, complicating local arrangements. When tourism creates sufficient wealth, it becomes too important to be left to the locals. Power moves away from local decision-makers—even those who psychically and socially invest in the ways of the new system tourism creates—and toward outside capital and its local representatives. This redistribution changes internal relations, as over time it consolidates into a new dominant template or overlay for the places it develops. The new shape disenfranchises most locals as it makes some natives and most "neo-natives" (those who are attracted to the places that have become tourist towns by the traits of the transformed place) economically better off and creates a place that becomes a mirror image of itself as its identity is marketed. A series of characteristic and oft-repeated consequences results from this scenario, leaving all but a few in tourist communities questioning whether they were better off in the economic doldrums in which they lived before tourism came to town.

In this sense, tourism is the most colonial of colonial economies, not because of the sheer physical difficulty or the pain or humiliation intrinsic in its labor, but as a result of its psychic and social impact on people and their places. Tourism and the social structure it provides make unknowing locals into people who look like themselves, but who act and believe differently as they learn to market their place and its, and their, identity. They change every bit as much as did African workers in the copper mines of the Congo or the diamond mines of South Africa, men from rural homelands who became industrial cannon fodder. Unlike laborers in these colonial enterprises, who lived in obscurity as they labored, tourist workers face an enormous contradiction: who and what they are is crucial to visitors in the abstract; who they are as service workers is entirely meaningless. Tourist workers quickly learn that one of the most essential traits of tourist service is to mirror onto the guest what that visitor wants from you and your place in a way that affirms the visitor's self-image.

Here begins a dilemma, a place where locals must

be what visitors want them to be in order to feed and clothe themselves and their families, but also must guard themselves, their souls, and their place, from those who less appreciate its special traits. They negotiate these boundaries, creating a series of "boxes" between themselves and visitors, rooms in which locals encourage visitors to feel that they have become part of the place, but where these locals also subtly guide visitors away from the essence of being local. The Sugar Cane Train in Maui nods in this direction as the conductor tells us his story; tourists do not much care about the stories of the cane-cutters outside the train window.² In this process, the visited become something else, somehow different from who they were before as they exchange the privilege of their identity. This fraudulent offer to share an image of their sense of belonging for coin becomes a far harsher bargain than merely exchanging labor and the assets in their ground or on it for their sustenance.

This process of scripting space, both psychically and physically, defines tourist towns and resorts. All places have scripted space; the scripting of space is part and parcel of the organizing of the physical and social world for the purpose of perpetuation. Like commercial space, tourist space is specially scripted to keep the visitors at the center of the picture while simultaneously cloaking, manipulating, and even deceiving them into believing that their experience is the local's life, reality, and view of the world. "Wasn't it wonderful here [in Hawaii] before Captain Cook showed up," a friend said to me over dinner at an exquisite shoreside restaurant in Ma'alea Bay, Maui, thoroughly swallowing the fiction of the scripted space of tourism.³

Despite often seductively quaint and romantic settings, seeming harmlessness, and a reputation as a "clean" industry, tourism is of a piece with the modern and postindustrial, postmodern worlds; its social structures and cultural ways are those of an extractive industry. While its environmental byproducts are not the tailings pile of uranium mining, in the West they include the spread of real estate development, the gobbling up of open space in narrow mountain valleys, the traffic and sprawl of expansive suburban communities, and the transformation of the physical environment into roads and reservoirs that provide activity and convenience for visitors. Tourism offers its visitors romanticized visions of the historic past,



Cannery Row, historic sardine-canning district of Monterey, California, illustrates the ways tourism transforms communities and reshapes even their historical memories. After overfishing destroyed the Monterey Bay sardine fisheries after World War II, most of the canneries and working-class houses and businesses were abandoned. Modest numbers of tourists discovered the neighborhood by the 1960s, attracted by the picturesque bayside setting and closed buildings in quaint disrepair, and a few new shops and restaurants were founded to take advantage of the trade. That was nothing compared to what would happen after 1984, with the opening of the Monterey Bay Aquarium in one of the abandoned canneries. Instantly becoming one of the spectacular tourist destinations on the West Coast, the aquarium attracted ever-growing hundreds of thousands of tourists each year. Land values increased sharply; and monstrous traffic jams and parking problems spread to the old, narrow, neighboring streets, provoking loud protests from nearby residents in Monterey and Pacific Grove. A curious combination of luxury hotels and restaurants, art galleries, shopping malls (some in gutted historic factories), and shops specializing in junk tourist articles gobbled up land, tearing down historic buildings in the process and transforming the district. The legitimate industrial, working-class, and environmental history of the district was submerged in a tide of tourism. Virtually the only surviving historical images were those associated with the fictional characters and places in John Steinbeck's celebrated 1940s novel, *Cannery Row*, which at best provided little more than a minor footnote to the neighborhood's past. Above: Former laboratory of Ed Ricketts, marine biologist friend of John Steinbeck and the prototype for "Doc," hero of *Cannery Row*, ca. 1991, which is now in the process of becoming a house museum and the only interpretative historical site on Cannery Row. Right: Monterey Bay Aquarium, ca. 1991. Editorial staff photographs.



the natural world, popular culture, and especially of themselves. The sale of these messages, even in their least trammled form, is what iconoclastic author Edward Abbey called "industrial tourism," the packaging and marketing of experience as commodity within the boundaries of the accepted level of convenience to the public.⁴

The most postmodern of such devices, the ones that meld the technologies, attitudes, and styles of the Age of Information, the era of the global transmission of knowledge that followed 1980, go even further. They purposely create another level of experience that masquerades or prepares for so-called authentic experience, blurring any line that may remain and often making the replica more seductive than the original. Using experience to script space in another way, to design artificial controls that seem natural and ordinary as they highlight the activity by subtly persuading the visitor that the activity is their own, this postmodern form shatters historical distinctions between the real and the unreal by producing faux replicas of experience independent of the activity from which they derive.

Las Vegas has best defined this reality in its redefinition of space, time, and meaning into constructs that serve the visitor, but this form has become ubiquitous. The climbing gym, which offers indoor "mountain climbing" and training for the initiated and uninitiated alike, also fused these concepts. Taking this experience to new heights is a 75-foot-high climbable rock face called Surge Rock, sponsored by Coca-Cola as a way to promote its newest soft drink, Surge, at Sega Gameworks in the Showcase Mall, a prototype upscale entertainment and commercial development that opened in 1997 on the Las Vegas Strip. As the project debuted, Showcase developer and entrepreneur Barry Fieldman climbed the rock-face; family and friends arriving at his six-year-old's birthday party watched him ascend as they rode the elevator down to the first floor, where other climbers assembled.⁵

With the varieties of experience available in the postmodern world, all tourism, from Surge Rock to the Eiffel Tower to an African safari, and even backpacking in the Desolation Wilderness of the Sierra Nevada or following in the footsteps of proto-archaeologist Heinrich Schliemann, is scripted industrial

tourism. The wealth of industrial society, its transportation technologies, its consumer goods, its emphasis on convenience, and the values of a postmodern, post-consumption culture create the surplus that allows people to have any experience they choose. Its goal is not experience, but fulfillment—experience that makes the chooser feel important, strong, powerful, a member of the "right" crowd, or whatever else they crave. Those determined to leave mainstream society in search of an individual sense of non-tourist travel are scripted into believing that backpacking in the Desolation Wilderness makes them unique or at least part of a rare breed, somehow intellectually and morally above other tourists. This conceit is common among elites—academic and environmentalist among them—who believe they know better than the rest of humanity. The embrace of the inherently fraudulent "ecotourism"—a mere codeword for an activity that parallels the colonial tourism of Theodore Roosevelt in Africa—reveals a stunning naivete in the hope of creating a better world. Finding the little out-of-the-way inn in rural Ireland no more "invents" a unique experience than does a bus tour of Las Vegas or the Universal Studios tour in Los Angeles. It merely offers a wrapper that promises certain sensibilities a self-affirming "authentic experience" in the viewer's terms. The delusion of distance from their society and the superiority of spirit, and sometimes the skill it connotes, exists even for the climbers of Mount Everest. Even as Rob Hall, the vaunted New Zealander guide of the Himalayas, recognized that his death was imminent during a tragic May 1996 ascent, he spoke to his eight-months-pregnant wife and unborn child through a satellite phone, diminishing the idea that any form of tourism can be other than that of the global market. The expedition took place so that people who could afford it could feel personally satisfied; a total of eight people died as a result.⁶ "Bagging trophy," as some caustically refer to the status side of postmodern tourism, can be dangerous as well as exhilarating.

For Americans, the natural and cultural landscapes of a mythic American West hold these psychic trophies. The West is the location of the American creation myth, the national *sipapu*, the figurative hole in the earth from which Pueblo Indian people emerged in their story of the beginning of the world. The image

of the West, especially in the conquest that occurred between 1848 and 1890, serves that same mythic purpose for Americans. The Revolutionary War has distant meaning, but in the late twentieth century, the West holds mythic sway. In the post-Civil War West, the U.S. emerged anew and reinvented itself, shedding slavery, sectionalism, and states' rights and becoming the American nation that persisted until its post-Watergate fragmentation. The new nation embodied in the West transcended the inherent flaws of the first republic, which impaled on its own inconsistencies by the shelling of Fort Sumter; the West healed the hole in the heart of the nation born anew after this epic and cataclysmic tragedy. The revised national creation myth gave the West primacy in American life and thinking that grew from innocence and the potential for reinvention, a cachet that further marked the region's importance in a postindustrial world that increasingly depends on tourism. When Americans paid homage to their national and nationalistic roots, they did not look to Independence Hall; they went West as they believed their forefathers did, to find self and create society, to build anew from the detritus of the old.⁷ This need for redefinition explains the historic and modern fixation with the West in the United States and even in Europe.

Western tourism stands at the heart of the American drama precisely because it occurs on the same stage as the national drama of self-affirmation. To Americans the West is their refuge, the home of "last best places," as writers William Kittredge and Annick Smith touted the region at the end of the 1980s, home to the mythic landscapes where Americans become whole again in the aftermath of personal or national cataclysm. This virtue and incredible burden makes tourism in the West more tantalizing and tempting, more fraught with tension and anxiety, and more full of text, subtext, and depth than anywhere else in the nation. The same activity in the West means more than elsewhere; the myth of exceptionalism has a life of its own as the Rockies rise in front of westward-bound travelers even as late as Jack Kerouac's adventures in the 1950s.⁸ That peculiar standing makes western tourism a crucible in which the forces that drive American capitalism collide with growing and increasingly disparate and ran-

dom forces, economic, social, cultural, and political, that shake the foundations of the modern world.

Different parts of the American West react to tourism in disparate ways. One West, urban and rural, is tourist-dependent; in states such as Nevada and Hawaii, which depend on tourism to the exclusion of other economic strategies, tourism has become an extension of state government. In both, tourism has paid the bills as it framed a postindustrial economy and postmodern culture; both also show traits of being plantation economies, run by outside capital and local overseers at the expense of the local public.⁹ The identity of such places became what they marketed. Tourism there was studied, measured, and surveyed in an attempt to balance its impact with the profits it brought without alienating visitors.

In another West, rural, rooted, and increasingly challenged by changing economic conditions, tourism has long been a byproduct, a shadow economy to which few gave much credence. To many, especially those possessed of the myths of individualism that permeate American culture, it seemed ephemeral and unimportant, not as substantive as making things, growing food, or raising animals. In places such as 1920s Jackson Hole, Wyoming, or southern Utah at the proclamation of the Grand Staircase-Escalante National Monument in 1996, the outright dismissal of its significance as well as its amorphousness allowed tourism to develop with little input, to function autonomously, apart from other more thoroughly measured parts of the regional economy.

A third West, urban, more affluent, and more cosmopolitan, regarded tourism as an integral part of the regional mix, an essential sector of the economy that was not categorically different from the industrial sector or other service endeavor. Los Angeles and San Francisco reflexively cater to tourism as just another economic endeavor. Almost without the recognition of larger regional society, both visitor and visited, tourism acquired distinct forms in such places.

As different as they are in geography and activity, the forms of tourism create similar patterns of life. In origins, economic structure, hierarchical organization, dependence on corridors of transportation, and transformative impact on existing communities, a diverse range of places, from the Grand Canyon to Las Vegas and Disneyland, offers numerous parallels. Tourism



Las Vegas, Nevada, is perhaps the best illustration of the dynamic economic-development potential of tourism (in this case, principally through gambling) and the lure that entices many communities to follow that city's lead. Above: Las Vegas, ca. 1910, when the village was little more than a rail waystation in a harsh, unproductive desert. *Courtesy California State Railroad Museum Library and Archives, Sacramento.* Below: The Las Vegas Strip, lined with luxurious hotel-casinos, is today one of the most famous (and lucrative) streets in the world. *Courtesy Las Vegas News Bureau.*



is barely distinguishable from other forms of colonial economics. Typically founded by resident proto-entrepreneurs, the industry expands beyond local control, becomes institutionalized by large-scale forces of capital, and then grows to mirror not the values of the place, but those of the traveling public of the various moments of the twentieth century. The malleability of the industry makes the places that engage it more pliable, creating pockets of prosperity within localities that are typically limited to incoming neo-natives. Existing elites find themselves facing a trade-off. They can accept profitable but diminished status, or fight with all their energy against outside forces. For ordinary people who typically limp along in many of these locales, tourism offers the promise of panacea, but delivers far less. Many residents give up long-standing patterns of life with the expectation that tourism will provide better material sustenance without diminishing their sense of self or place. Often it does not, leaving people who had once been content in an unsettled mood and economically only barely better off. As a salvation for social, cultural, and economic problems, tourism has typically fallen short; success with it can be even more devastating than failure. Tourism's economic results range from good to disastrous; from a social perspective, no one it touches remains unchanged.

The selection of tourism as a community strategy is a sequence of imperfect choices, where understanding is muddled by the promise of prosperity. It is not inherently bad for people, communities, or regions. It is a choice; but as nineteenth-century social critic William Dean Howells once observed, choice can be a curse. For many places in the American West of the 1990s, tourism seems to offer the best available economic strategy to maintain community fabric, but places that seek it forget that the places that embraced tourism earlier in western history chose it because they had few other economic options. Tourism's greatest danger is its image as panacea. Community leaders hurry to imperfect choices derived from insufficient information without recognizing tourism's potential consequences. Only the benefits, only the successes, only the flow of revenue to state, county, and local coffers, and not the increase in expenditures and the changing social picture, occupy their thoughts. The economist's fallacious dream of

rational choice based on perfect information collapses, as unanticipated consequences overwhelm expectations in tourist communities.

II

As Maui reveals, tourism is where modern capitalism ends and its postmodern equivalent, a compelling rendering of the post-1980s cultural and economic landscape, begins. The view of the shore from Lahaina Bay offers a legible geography that operates within a series of conventions that appear intelligible to inhabitants of an industrial sociocultural and economic landscape, but are really quite different. On Maui, experience is the commodity for sale; viewing the whales both epitomizes and is at the same time irrelevant to this process. Maui connotes relaxation and renewal, the respite from the clawing of the modern; its scripting is designed to promote comfort, convenience, and security. Simultaneously, it emphasizes the experience of "being" over the comforts it offers. In this, it is postmodern script, placing the visitor at the center of the picture and encouraging concern with the self far and away above any interaction with the world. The physical world is not the catalyst for experience; on Maui, it is backdrop to the self.

Postmodern capitalism is new terrain, largely unrecognizable except to those who experience it. It is not the capitalism of Andrew Carnegie, J. P. Morgan, Henry Ford, Armand Hammer, or J. Paul Getty, but more that of Walt Disney, Bill Gates, and gaming impresario Steve Wynn. It is not national or nationalistic, but trans-national and global. Its emphasis is not on the tangible activity of making things, of ever-larger assembly lines and production processes, but in the marketing of images, of information, of spectacle. It creates information and information-processing systems and the accouterments that turn regional and national economic endeavor into a global commodity. Of equal significance, postmodern, postindustrial capitalism produces images that convey emotions—hope and contentment chief among them—as well as conduits through which information can travel. It is a form at once substantial and inconsequential, crucial yet trivial, meaningful yet ephemeral. Its sociocultural impact is vast; in its ability to move information, and as a result to move more traditional forms of economic endeavor such as

assembly-line work, postmodern global capitalism is truly revolutionary. Postindustrial capitalism has changed the very meaning of economic endeavor, providing new ways to produce wealth in a transformation as profound as the industrial revolution.

Industrial capitalism began in a productive ethos, a work ethic rightly or wrongly labeled "Protestant," and an ideal of making things large and small with an ebullient joy that helped make consumption of these goods an afterthought. Pragmatism permeated the production phase of American capitalism, that great expansion of productivity associated with the years between 1865 and 1914. It focused on the transformation of raw material into useable commodity, such as steel, or finished product, such as a sewing machine or telephone. The shelves of goods available in the "palaces of consumption," the department stores, were the signature of the age. Utility defined this phase of capitalism, manifesting in the time-and-motion studies of Frederick Winslow Taylor and the subsequent invention of the assembly line, as well as in transportation systems such as railroads and electric street cars that utilized industrial technologies.¹¹

Intimately connected to production was consumption, the dominant feature of the stage of industrialization that gathered momentum following World War I. The spectacular consumption by the elite of the late nineteenth century, labeled "conspicuous" by social critic Thorstein Veblen, triggered an emphasis on the status, rather than the utility, of goods. This continued with the advent of mass technologies such as the radio, the moving picture, and later, television, and reached its pinnacle in the refinement of details that marked the planned obsolescence built into the graciously lined and finned vehicles of the immediate post-World War II era. Consumption became first a means to an end in American society, and later an end in itself; before collecting toys took hold, consumption fueled production. Consumption was about using and enjoying the largesse of American economic development, a concept foreign when industrialization began in the U.S., but that grew in significance in fits and starts until it gathered full force during the 1920s. That enjoyment made consuming goods desirable, or commodified them, went hand-in-hand with the rise of advertising, the widespread availability of credit, and the increased social impor-

tance of the self. It reached a pinnacle during the American Cultural Revolution of the 1960s, articulated with a razor-sharp edge by social observer and wag Tom Wolfe in his famed essay from the 1970s, "The Me Decade."¹² In this world, the needs of the individual ruled without social checks upon them. The ethic of tangible consumption became the dominant feature in the transformation of the nation from one that avowed deferred gratification to one that collectively and individually sought fulfillment in an instant. First industrial-age Americans made things; then they bought them.

In the postindustrial world, Americans became consumers of more than tangible goods, of the spirit and meaning of things rather than of their physical properties. What Americans of a certain class could touch and hold no longer exclusively granted the security and importance to which its possessors were accustomed. When anyone could lease a BMW, the elite needed more: the control of feelings, emotion, identity, and modes of understanding that signified status, a way to differentiate themselves from the increasingly luxurious mass cultural norm. A new step in commodification came to dominate the American and international landscape. Corporations packaged and people purchased what they felt granted them identity, but that identity ceased to follow traditional iconography and became a product of the international culture marketplace.¹³ Modernism had been about finding the individual's place in the world of machines; the mergers and downsizing of postindustrialism rendered the individual irrelevant, as postmodernism made the self the only meaningful reference point. Ultimately, this affirmed a series of trappings, tangible and shapeless, that proclaimed an identity of the self, a far cry from the national identity of the production ethos. Adorning the self became a goal, but not only with jewelry and clothing. An intangible dimension gained great significance.

Tourism, in which people acquire intangibles—experience, cachet, proximity to celebrity—became the successor to industrial capitalism, the endpoint in a process that transcended consumption and made living a function of accouterments. It created a culture—languid and bittersweet, and as writer Mark Edmundson put it, "very, very self-contained. . . . There's little fire, little passion to be found"—that had as its object participation in consumption.¹⁴ Yet even



On the site of a historic mansion, Sunnyside, the north Lake Tahoe resort, restaurant, and marina, promises to provide guests the "heritage of Old Tahoe." The historic structure, however, was remodeled beyond recognition in the 1980s, a subsequent fire destroyed much of what was left of the original, and the establishment is owned by a San Francisco-based chain. *Editorial staff photograph.*

the young recognized that this culture was equally post-tangible. Material goods no longer fulfilled and created status in the U.S. and Europe. Only a very few products were so elite that they could not be widely owned and even those few could be suitably copied. Goods were not sufficient; status became a function of context, of address, of place, of table in a restaurant. Although the water was the same and the towels no softer and only marginally fluffier at the Grand Wailea's pool than any other, the pool contained a trained aestheticism that Americans, and world citizens, mistake for "better." The pilfered wristbands there provided entrée into this world, the look of prosperity and status, wrapped around the intangible of presence in the "right" places. In the postindustrial, postmodern world, people collect the difference embodied in travel experience as some once col-

lected Fabergé eggs. The act of travel, especially on terms dictated by the self, has come to mark the self-proclaimed well-rounded and has allowed individuals to define themselves as unique. Travel as defining experience has become a new form of religion, a harbinger of a new way in which to believe and especially value the self. Bumper stickers will soon sport sayings like "she who has been the most places and stayed in luxury in all of them wins," instead of the more passé "he who dies with the most toys wins."

Tourism is the archetype of the service economy, the market of the future. Its form resembles that of the industrial world and derives wealth from it, but tourism is new, postindustrial in the way it competes economically and in the transnational global patterns of capital distribution it reveals. The seemingly non-

descript Sunnyside Inn lodge and restaurant on the shores of Lake Tahoe appears certain to be a one-owner lodge, an old-time resort. Here in a restored home built by Captain Kendrick of the Schlage Lock Company early in the century, visitors receive an elegant and relaxing experience, real hospitality like the captains of industry received. A close look at the walls reveals a line of photos of peer restaurants, other members of the TS Restaurant chain—in Kaanapali, Lahaina, Malibu, and Huntington Beach.¹⁵ The Sunnyside Inn has not belonged to family operators since 1986, when San Francisco restaurateurs bought the inn and restored it to its former elegance. Sunnyside Inn was one of more than one dozen restaurants, all scripted to offer unique experience, to be contained in one management group. This faux chain, precisely unlike chain restaurants such as Denny's in its diversity of ambience, but adhering to the chain formula, shows the ways in which activities packaged as distinct have structural parallels. These, too, are networks, shaped by the scripting of space, formed of capital, of influence, of power, of attraction, but that outwardly deny their association with each other in a way that industrial networks never did.

Nor is participation in this economy the same as in its industrial counterpart. Selling ambience, experience, and identity has little in common with selling durable goods, except for the physical act of selling. Little that can be touched and handled changes hands in the tourist transaction; the souvenirs are big business, but they are emblems of the point, not the point itself. What occurs is more complicated and ambiguous than a typical material sales transaction in American society. A feeling is transmitted and perhaps shared; a way of living is expressed; a mode of behavior, be it the ethos of skiing, the appreciation of the Mona Lisa, or the way to hold your cards at the blackjack table, is offered and recognized, if not always understood. These markers of belonging, of being part of the fashionable, the exciting, the new, become critical in a world where most earlier indicators of status have become easily attainable and, as a result, have lost their ability to differentiate from the masses. In this new form of exchange, something meaningful but not tangible, typically the identity, way of life, or feel of a place and its people, seems to be offered up for a price. But not always.

III

A view of tourism from the perspective of the visited, and not the visitor, highlights a different set of relationships in the transaction between visitor and visited. For locals and incoming "neo-native" workers, people who embrace the constructed ethos of a place and generally become willing to be underemployed there in order to imbibe its essence, the embrace of tourism leads to significant changes. A world in which people do what appears to be the same thing but in a different way, with a different feel, becomes first characteristic and then overwhelming. Sun Valley, Idaho, native and writer John Rember cogently describes this situation. "There are worse lives than those lived in museums," he mused about his own fate, "worse shortcomings than a lack of authenticity."¹⁶ As problematic as is the concept of authenticity, Rember's definition holds much weight. "Authentic" to him is a world that serves its residents ahead of outsiders, that grows crops, hunts animals for the table instead of sport, and is tuned to the rhythms of the land; it is agricultural and industrial, the forms called "first nature" and "second nature" by noted historian William Cronon.¹⁷ The tourist world inverts that principle, opening a new realm of existence, a "third nature," much to the distress of writers such as the late Edward Abbey and locals who remember a time before tourism descended upon them and changed their lives.

The world Rember remembers and eloquently describes is Cronon's first and second nature. First nature, the prehuman landscape (and I would add, its organization by humans for subsistence purposes), contained essentially hunting and gathering, herding, and small-scale agrarian regimes. It is not devoid of humans, for that would render it meaningless and abstract, a time beyond time for the human race. Instead, first nature describes hundreds of centuries of relationship between a species and their world, which they typically could only effect in small ways. The prototype for second nature became, for Cronon, Chicago, a place apart from first nature but intrinsically tied to it, its utility transformed by proto-industrial and later heavy industrial processes, forms of organization, and physical and intellectual structures and symbols.¹⁸ If first nature was organized

to feed and clothe the self and the family, second nature's forms were designed to market to the world.

"Third nature," like postindustrial economies and postmodern thinking, focuses not on what can be touched but on what can be felt in a personal and emotional sense. It is a natural world organized to acquire intangibles, experience, and cachet, to grant identity, to regard nature not as source of food, but instead as fount of psychic energy and emotion. Faux or real, scenery evokes powerful emotions. The *fin de siècle* tourist understood the Grand Canyon as an affirmation of the nation. The postmodern tourist sees it not as external untrammelled nature, but in its impact on the self. Surge Rock is real to people who do not see El Capitan as more than a climbing rock; it provokes similar respect, because for the self, it shares the same purpose with El Capitan. Third nature is intangible, ungrasped by the hands. It is ethereal; only in the mind, and maybe even the heart, can its significance exist.

Yet even those who remember a world before the tourism of third nature and sometimes resent the present can not live without tourism, for it provides them a promise of permanence in place, a kind of importance, and income. Where Rember's ways of making a living never existed or have become tenuous, where the power of social structure has weakened and frayed, where many or even most have little to look forward to except the drudgery of poverty and irrelevance, the promise of tourism and, often, the physical changes and attendant growth it creates, provide hope and the glimmer of a future. Tourism begins as panacea for real problems, but becomes addictive. Its promise of vitality appears to offer a way to do better than survive, than merely to bump along near the bottom in eternal mind-numbing stasis. It is a way to dream of better in a reality much the same.

These multiple tensions play in ambiguous and multi-faceted ways in the development of a tourist economy. The selection or acceptance of tourism as a strategy for community well-being forces a new characterization of the virtues of place, different from its previous shape. When AMFAC developed Kaanapali as a resort, it evaluated the area differently from what it did for sugar production. It also illuminates a working description of the local power structure, soon to change as a result of tourism. These two fea-

tures define place, often to the consternation of people who perceive their position in a manner different from how it becomes ascribed. Here John Rember's fictional characters live, here the "real" of the local world separates from the perceived real that visitors are encouraged to embrace, as locals deftly guide them away from their own essence. At this location, the tension between the various polarities of these different world views finds its manifestation.

Tourism turns place and people into something different, but few can do without its benefits. It brings new neighbors, who often do not share existing values, but those newcomers are a source of prosperity. In the West, tourism encourages the marketing of something different from the beef grazed on local grass, the timber in nearby forests, or the riches buried deep in the ground. While these, too, can be exercises in colonialism that impress a structure upon the town, they require only the backs of the locals, not their hearts or minds as well. In tourism, the very identity of place becomes its economic sustenance, and in that transformation is a complicated and paradoxical situation for the people.

IV

Three basic, overlapping, and intertwined types of tourism have evolved and become integrated during the twentieth century in the American West. All three existed in various forms from the beginning of the era of mass transportation. They rose to dominance in no small part based on the cultural values, the distribution of wealth, and the availability of transportation to the destinations that defined the ethos of the moment. All revealed specific attributes of the dominant thinking of their times, superseding the other forms of tourism that co-existed alongside them. In this respect, the different forms of tourism became cumulative rather than sequential. Each successive stage of dominance embodied traits of its predecessors as it wove those attributes into the new shape through which it refracted changing American values.

The first of these to develop was *heritage*, or *cultural*, *tourism*, the marketing of the historic, scenic, and mythic past. Long before the turn of the twentieth century, Americans defined a cultural heritage for themselves apart from the European legacy they revered,

emulated, and to which they felt inferior. Cultural values and a need for a national iconography made a reverential approach to both the past and the spectacular scenic attributes of the West a cultural necessity. The art of Thomas Moran, Albert Bierstadt, and others reflected that mythic formulation, and conceptually—and through the railroad, physically—generations embraced it. As long as travel remained an upper-middle- and upper-class phenomenon, heritage and cultural tourism exemplified its dominant ethos.

This class-based tourism reflected and resulted from the industrialization of the late nineteenth century. It embodied the simultaneous confidence and insecurity of the industrial age, the tremendous pride in the accomplishments of industrial society and the myriad benefits it brought, as well as the uncomfortable feeling caused by the changes it wrought. In the initial phase of national tourism, the industry embodied a class-based affirmation of the power and virtues of the modern, while providing a context for a critique of industrial society. In this ascribing of society-wide meaning to place, tourism served an important conceptual role in American society. Western tourism, so closely allied with the idea of Manifest Destiny, the quest for the sublime, and the desire to know that marked *fin de siècle* America, became an integral part of reassuring the powerful of their place in a rapidly changing world.

During the 1920s, broader distribution of increased wealth, better transportation systems, particularly the popularization of the automobile, and easier access to remote places initiated the rapid development of nationally marketed *recreational tourism*, a phenomenon that involved physical experience in the outdoors instead of the museum-like appreciation for cultural and natural features that characterized heritage tourism. This variation melded the amenities required by elite nineteenth-century tourists with activities that appealed to a broader public, less status conscious but more affluent and possessed of greater amounts of leisure time after World War II. One result was the development of the ski industry and the emergence of prewar resorts such as Sun Valley, Idaho, and in the postwar years, Aspen, Colorado.

As the infrastructure that supported travel developed, as roads stretched toward the horizon in the

American West and tourist camps and motor courts followed, travel became democratized. No longer were the wealthy the only people who could arrive at desirable destinations. The social spread in automobile ownership assured that a wider range of people visited a broader spectrum of places and passed through a far more diverse world on the way, expanding the impact of tourism, but diluting the intensity of its message. The new traveler, more middle-class, and by the 1920s less tuned to the tastes of the American elite, enjoyed different activities. The influence of cultural and heritage tourism gave way to the sheer experience of recreation.

The growth in population and employment opportunities in the post-World War II era, technological innovations such as air travel and air-conditioning, and the rise of a society that placed a premium on leisure and had the discretionary money to fund that obsession helped inaugurate a third phase labeled *entertainment tourism*. Between 1945 and 1973, the U.S. experienced economic growth of such great proportion that it altered American expectations. The combination of wealth and technology allowed Americans unparalleled freedom and changed the way they experienced the world. Television, contributed greatly to this conceptual reformulation, as did the panoply of popular culture devices, from cable television to the VCR, boombox, Walkman, and personal computer that followed. In this changing cultural self-pronouncement, the West retained even greater significance. It became a playground, the American dreamscape, historic, mythic, and actual, spawning a complex industry with the ability to transform places as it created an economy for destitute and flourishing communities alike. The development of Las Vegas, Disneyland, and their range of imitators characterized this phase. In the post-1945 United States, travel to accomplish personal objectives acquired the status of national birthright, and changing modes of transportation and accommodation made all its forms accessible to a broader range of people than ever before.

In the post-war era, the three basic forms of tourism melded into images of their earlier incarnations. Heritage and recreational tourism in the West, historically linked by geography, developed closer ties as the tastes of the American public changed. Entertainment



At Old Sacramento, tourism and history coexist in a tenuous, uneasy balance. In the 1960s, historic preservationists rescued Sacramento's most historic district from promoters and state engineers and bureaucrats who planned to demolish the gold-rush-era steamboat and railroad city center in order to build a freeway along the Sacramento River. Subsequent success in attracting tourists and local shoppers, however, has had mixed results. The architecture of the gold-rush era is well restored, if greatly sanitized and romanticized, and important historic interpretive centers do exist at the California State Railroad Museum, the Sacramento Discovery Museum (of Sacramento history), the California Military Museum, the Wells Fargo History Museum, and a few other sites. Legitimate history is obscured for many visitors, though, by a host of other activities that have little or nothing to do with the district's past: jazz festivals, t-shirt shops, bulk candy stores, gourmet coffee houses, and a few fast-food chain franchises. *Editorial staff photographs.*



tourism eventually included both recreational and heritage tourism within its broad dimensions, packaging experience in resorts and national parks and mimicking what these forms offered in the packaged unreality of Disneyland, theme parks, and even Las Vegas. The result was an industry that was sufficiently malleable to weave straw into gold. As in the children's fairy tale about the miller's daughter, there was a steep price to pay for the trick: the cultural, environmental, and psychic transformation of place. Tourism makes new places that look like their predecessors and occupy the same geography, but ultimately all that the past and future share in such places is the physical attributes of the place.

The approach of tourism also frays the bonds of community. Ties within communities exist on two levels: actual bonds of connection and agreed-upon fictions of community. In this latter category, people paper over the differences among themselves in an effort to maintain the semblance of community. They stipulate that their disagreements are matters of conscience and belief that divide any people of good character and intent. The embrace of tourism, however, shatters such fictions, pitting different elements against each other, those who stand to benefit from the changes against those whose economic status will be driven downhill as a result. Such tension is not unusual in any kind of community; especially in small tourist or resort towns, the destruction of the fiction that all have the best interests of the community at heart leads to a rending of the social fabric. Those who stand to benefit, the members of the growth coalition, embrace the new, sometimes with terrifying alacrity; those whom this economic change leaves in stasis or decline seethe, resent, and sometimes resist.

These elements band together and develop a range of strategies to halt, slow, deflect, or reverse the changes that tourism brings. A continuum of response among those threatened evolves, taking all forms from resistance to negotiation to acceptance to denial, as places define themselves in terms of their past, which often seems far more palatable than the present and future. In highly educated and sophisticated communities, filled with neo-natives from the elite groups in American society, such resistance can be powerful and all-encompassing. The loosely defined rubric of "quality of life" serves as the concept behind

such efforts. In communities with greater affinity to accept power from above, with fewer people who feel control over the fate of their place, such actions often consist of grumbling disguised as social critique. In all cases, the right to challenge change is conveyed through self-identification rituals that have social, cultural, and sometimes economic traits. These rituals, ranging from photographs of the people of Aspen lined up next to markers connoting the year they arrived on the local rugby field, to commercials reminding Las Vegans of "how it used to be before the volcano, before the pyramid," prove local and neo-native identity and strengthen ties within the wide group that are no less than ambivalent about the changes tourism causes.¹⁹

As a solution to the social and economic problems of the colonial status inherited from the nineteenth-century West, the tourist industry has vast limitations. The "sink" of economic strategies, the last resort of moribund communities and states, the bottom to which all economies flow, tourism is employed by local leaders as a solution to the problems of places with declining industries. Tourism requires no special skill of its employees save a willingness to be gracious and attentive. Operators of tourist enterprises rarely require tax abatements and local dollars to support the industry, and the retail trade generated by tourism fills the coffers of most western states with sales tax revenue. Tourism often becomes a response to economic desperation. It serves as a replacement economy for declining industries. Viewed through the rosier of lenses, tourism promises that a community can retain its fabric and character as it brings prosperity.

Unlike traditional industries, which often bring a labor force that becomes socialized to local norms, tourism comes replete with transient newcomers. Labor follows tourism, as do managers and other supervisory personnel. So do neo-natives, people drawn to tourist destinations for their charm and amenities, for their *mise en scène*, who find themselves embracing a fixed moment in local time. The tourists themselves become a strong influence, objects of contempt and gratitude, but harbingers of a range of experience beyond that of most locals. The need for tourists to experience something they define as real, but that they can quickly understand, compels

change. Locals who expect to be who they were become who their visitors want them to be; increasingly these purveyors of local service cease to be local at all. Neo-natives replace locals, creating the oddly postmodern spectacle of newcomers imitating locals for visitors, to give those outsiders what they are paying for: reality as the tourist understands it.

A paradox results: local communities that embrace tourism expect that they will be visited by many people, but that, mostly, their lives will remain the same. They do not anticipate, nor are they prepared for, the ways in which tourism can change them, the rising cost of property in their town, the increased traffic, the self-perception that the work they used to do was not important, and the diminishing sense of pride in work and ultimately in community, and the tears in the social fabric that follow. Many find selling themselves more complicated than selling the minerals in their ground or the beef raised on their ranches. With diminishing economic options, tourism is sometimes all there is left.

Western tourism typifies the impact of the industry in places that rely on it throughout the world. The West remains an economic colony, supported by federal and outside dollars, subject to both extra-regional and intra-regional influences seeking to assert independence and to control its destiny, but which finds itself with the economic structure and socio-cultural issues of a colony hardened beyond transfiguration. The structure of these communities and their evolution, the way they utilize transient and semi-permanent labor, and how they constantly become reinvented as new forms of themselves highlight the problems of tourist-based economies. Identity becomes malleable, as national chains, many of them resort-based, replace local businesses. These stores become ubiquitous, obscuring local business and culture to a traveling public that is seeing just what it saw at home but in a different setting, and in the process, affirming home, travel destination, and self. This homogenization and increasing uniformity reflect, rather than foreshadow, transformation. Although the arrival of such businesses illustrates the increased economic importance of tourist communities, it also spells the end of existing cultures. Often this arrival amounts to "killing the goose that laid the golden egg." The inherent problem of communities

that succeed in attracting so many people is that the presence of those very people destroys the cultural and environmental amenities that made the place unique.

This is the core of the complicated devil's bargain that is twentieth-century tourism in the American West. Success creates the seeds of its own destruction, as more and more people seek the experience of an "authentic" place transformed to seem more "authentic." In search of "life-style" instead of life, these seekers of identity and amenity transform what they touch beyond recognition. Things that look the same are not the same; actions that are the same acquire different meaning. In the process, tourists validate the transformations they cause; locals must bend as tourism deflects them, all the while fostering a grumbling social critique often indistinguishable from nostalgia for the world they have demolished. The tensions of industrial capitalism take on new shape.

Third nature, nature as spectacle, develops an ethos that claims more similarity to first nature than to the industrial second nature that provides its wealth. Tourism complicates; it defines and redefines life after industrialization. It is different, yet the same. Western tourism sells us what we are, what we as a nation of individuals need in order to validate ourselves, to make us what we want to be. In that process, we as tourists change all that we encounter. Making us what we want to be means shaping other places and people along with ourselves. This is the fault line of tourism, its Grand Canyon. □

See notes beginning on page 196.

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Helen Maria (née Fiske) Hunt Jackson: An Introduction to *Ramona* and Its Author

by Marlene Smith-Baranzini
Associate Editor, *California History*

Characterized from childhood as independent and nonconforming, Helen Maria (née Fiske) Hunt Jackson was born in Amherst, Massachusetts, in 1830, to Nathan and Helen Fiske. Her father, a Congregational minister, taught at Amherst College. One of two surviving children, the impulsive, private Helen made fast friends with a girl quite her opposite—petite, frail Emily Dickinson. Neighbors, and briefly schoolmates at Amherst Academy, for a lifetime the two would correspond, supporting each other in writing and life.

After the death of both her mother and father, Helen completed her education at Abbott Seminary in New York and became a teacher there. Considered a great beauty in her youth, she met, was courted by, and in 1852 married Edward Bissel Hunt, a West Point engineer and brother of the governor of New York. They settled in Washington, D.C. Their first son died in infancy and a second son was born in 1855. In October 1863, Hunt was accidentally killed during underwater testing of a naval weapon he had designed. The death of their surviving son, Warren, came in 1865. Helen isolated herself to grieve privately.

When she reemerged, it was to write poetry expressing her losses. Travel essays followed, and her writing began to appear in the *New York Evening Post*. To avoid male ridicule as an “ink-stained woman,” she signed herself H.H. She settled into a boarding house in Newport, Rhode Island, self-styled literary capital of America, where she found a lifelong friend and mentor in Col. Thomas W. Higginson, author, women’s suffragist, and former abolitionist. Helen began the first of many popular novels she would write, characterized by themes of unhappy marriage or unrequited love. She published them anonymously or sometimes under her pseudonym, Saxe Holme.

Traveling with a friend, Helen Hunt in 1872 made her first trip through the West, to California. Her *Bits of Travel at Home*, describing domestic rail travel and sketches of people she met, proved popular and stimulating to the tourist industry. As suffrage leaders rallied for women’s rights in the 1870s and a woman prepared to run for president, Hunt was dismayed. Fate had robbed her of home and family life, and as a successful, popular writer, she had experienced few social or economic restrictions. She felt little sympathy with those who condemned the confines of domesticity.



From *Helen Jackson, Poems* (Boston: Little, Brown, 1898.)

A nagging respiratory ailment sent her to Colorado, where doctors believed the healthful air would restore her. From her new home in Colorado Springs, she began writing about the West for eastern magazines. Attracted to the ambitious financier and railroad executive William Sharpless Jackson, Helen Hunt married him in 1875. Their ten-year union would be characterized by many brief excursions together and many more separations, as they pursued private interests. Despite his prominence and her own literary reputation, Helen Jackson made few friends in Colorado Springs society, choosing instead to write. Not only was her habit of sleeping “Indian style,” with her head to the north, much bandied, her sympathies with American Indians were out of step among most Coloradans, who bore them ill will.

Jackson found her life’s passion when she traveled

Last, alone, in 1879, to help Oliver Wendell Holmes celebrate his seventieth birthday. The excursion included a reception honoring Ponca Chief Standing Bear, who told of the extermination of his tribesmen at the hands of the U.S. government. Deeply disturbed by his account, Jackson launched the crusade that defined her final years. She began a one-woman campaign to stir the national conscience, gathering research, writing to newspapers, circulating petitions, and publishing tracts describing the plight of Indians. When she threatened a lawsuit against the government, Interior Secretary Schurz retorted that Indians had no legal rights. Thus, she prepared her treatise, *A Century of Dishonor* (1881), documenting Indian conditions and denouncing federal Indian policy.

Although every U.S. congressman in 1881 received a personal copy of the report, it failed to rouse much interest. In Colorado, in fact, citizens reacted defensively, and Helen Jackson was denounced. She was, however, commissioned by *Century* magazine to write a series of essays on the California missions. During her tour of the missions, she took extensive notes about mission history and Indians' problems. She also studied the landscape, the agriculture, and the architecture. While completing her articles, she requested—and in July 1882 received—appointment as the first woman special commissioner of Indian affairs in California. With coagent Abbot Kinney, she spent six months in 1883 traveling by wagon or mule, visiting Indian settlements and observing the deplorable conditions under which Indians lived. Once she and Kinney intervened directly on behalf of the Sabobas, who were being driven off their lands. Jackson's report, filed in June 1883, included eleven points and recommendations about the California Indians. Yet again, it seemed to fall on deaf ears, except for critics, who called her a meddler. Finally, Jackson admitted what she had long suspected: only an emotional plea would attract popular sympathy toward the Indians. She believed that she must write the *Uncle Tom's Cabin* of the Indian population. She returned to New York, where distractions would not interfere with her writing.

Surrounded by her antique rugs and Indian baskets, she drew from her trove of personal observation, historical sources, vignettes and character sketches, and reminiscences of visits with friends in California, shaping the plot and scenes for the novel she called *Ramona: A Story*. In 1884, when the novel was finished, it was serialized in the *Christian Union*. By Christmas, the bound volume hit the mass market.

Ramona was a phenomenal success. Its idyllic images of Spanish California and the rhythms of a simpler, more leisurely life enchanted readers and awakened them to a new aesthetic. They yearned for yesterday—and *Ramona*—as Jackson had effectively and romantically portrayed them. The book's publication happened also to coincide with the marketing of south-

ern California as a tourist destination. Properly called *Ramona's* fictional location, the "fabled landscape" of "home," her "wedding site," Alessandro's "grave," and any other destination that promoters could find, however remotely, with the growing phenomenon.

Ramona readership was enormous, and some of the attention did center on the plight of American Indians, but it was the novel's romantic tragedy that propelled it to bestseller status. *Ramona*, the idyllic heroine, daughter of a Scots father and an Indian mother, was a dark-haired, blue-eyed beauty. At age four she became the ward of an old Californio family whose patriarch had died in the U.S.-Mexican War, leaving the widow, Doña Gonzaga Moreno, and their handsome son, Felipe. Because *Ramona* was of mixed nationality, however, she was despised by Doña Moreno. At nineteen, *Ramona* fell in love with Alessandro, a tall, accomplished Indian sheepherder at the Moreno rancho, who would one day become a tribal leader. The lovers resolved to run away to be together. They fled to a kindly Catholic priest, who married them. They took refuge in Indian country near Saboba, but were driven out by whites. Unable to get medical attention, their infant daughter died. Suffering "fits," Alessandro mistakenly took a horse belonging to a vicious white settler who shot him in cold blood as *Ramona* watched. Eventually, *Ramona* returned to the ranch and married her foster brother, Felipe, who had loved her from the first moment.

Edition after edition of the historical novel, even in Spanish, appeared. Although the wheels of change began to move for some Indian groups, the book's greatest legacies became nostalgia for genteel Spanish California and the perception that the Mission Indians were happy and well protected by the benevolent Spanish priests.

Jackson considered the book a failure. Unable to continue her activism, she succumbed to exhaustion from a lingering bronchial condition. Compounding her troubles, at home in Colorado she fractured her leg. When she could travel, she went to California, hoping the mild climate and then homeopathic treatment in San Francisco would restore her strength. She even wrote to John Muir, hoping to arrange a trip to Yosemite, where, she believed, three months' stay would rid her body of its "poison."

Unable to rally, the fifty-four-year-old writer and Indian reformer spent the remaining weeks of her life writing letters, completing her *Zeph* manuscript, and settling her affairs. With her husband at her side, Helen Hunt Jackson died in San Francisco on August 12, 1885. She was buried near the summit of Cheyenne Mountain, in Colorado. To the end, she talked about how new Indian agents might help the Indians—her 1883 report and activists who carried on her work would also bring reform—and she died believing that improvements were coming.

Helen Hunt Jackson's *Ramona*: Social Problem Novel as Tourist Guide

by Errol Wayne Stevens

Nathaniel Hawthorne, explaining why he chose Italy rather than the United States as the locale for his novel *The Marble Faun*, complained that his own country had "no shadow, no antiquity, no mystery, no picturesque and gloomy wrong, nor anything but a common-place prosperity in broad and simple daylight." Nineteenth-century tourists shared Hawthorne's romantic notion that gloomy associations made a place seem much more interesting. This presented a problem for southern California promoters who in the 1880s and 1890s had begun a campaign to make their region attractive to visitors from the East. If any place in the nation seemed touched by "broad and simple daylight," it was southern California. But these promoters were nothing if not ingenious people. They recognized not only that the ingredients for tragic history were available to them in abundant quantities, but more importantly, that an inspired author had recently written a popular novel whose themes addressed it. They also became adept at utilizing photography as a tool in their promotional campaigns.¹

The author was Helen Hunt Jackson and the novel was *Ramona*. It was Jackson's unfortunate fate that her social problem novel would be transformed into the textual basis for one of southern California's most enduring tourist attractions. Before the publication of *Ramona* in 1884, Jackson's reputation as a champion for the rights of Native Americans rested on her nonfiction work *A Century of Dishonor* (1881), which detailed the dismal treatment that Indians had received at the hands of the United States government over the first hundred years of independence. The same year that this book appeared, Jackson toured southern California gathering material on the Mission Indians for a series of articles she would publish in *Century* magazine. The following year, the commissioner of Indian affairs, Hiram Price,

appointed the author special agent to the Mission Indians, thus providing her with additional opportunities to travel and observe. She was horrified at what she saw and at the end of her visit resolved to do something to attract attention to the problems of Mission Indians. The result was *Ramona*, a novel about Indian life in southern California. With this work of fiction, Jackson hoped to do for the southern California Indian what *Uncle Tom's Cabin* had done for the African-American slave. The impact of the book was enormous, although not in the way that Jackson intended.²

The story of the tragic romance of Ramona and her Indian husband Alessandro became the basis for one of the most popular novels in American history. By the time of Jackson's death only ten months after it first appeared, the book had sold over 15,000 copies. Since then it has been reissued more than 300 times and is still in print more than a century after its first publication. The story has also inspired numerous dramatic adaptations—the first presented at the Mason Opera House in Los Angeles in 1905—and three motion pictures. Each year since 1923 the town of Hemet has hosted a Ramona pageant featuring a dramatic presentation of the story. Like the authors of other social problem novels, Jackson found that the public responded to something other than the book's intended message.³

Ramona is the story of a young woman, the orphaned daughter of a white father and an Indian mother, who fell in love with an Indian named Alessandro. This angered Ramona's foster mother, the imperious Señora Gonzaga Moreno, who hated Indians and had never told Ramona of her true ancestry. She locked up her foster child and threatened to send her to a nunnery. Felipe Moreno, the señora's son, tried to intervene on behalf of the two lovers, but to no avail. Alessandro and Ramona felt



The inner court veranda at the Guajome Rancho, ca. 1896.

Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Vroman Collection, V-323

that they had no choice but to run off to be married by Father Gaspara, a gruff but sympathetic priest who lived in San Diego. Unfortunately, Señora Moreno's opposition was not the only shadow to darken Ramona and Alessandro's lives. Even before they were married, land-hungry Yankees had evicted Alessandro's people from their home in Temecula. The couple took up residence at San Pasquale, where some of Alessandro's scattered band had reassembled.

In their new home, Ramona gave birth to a blue-eyed daughter and the couple experienced a brief period of domestic happiness, but misfortune

seemed to follow them everywhere. Pressure from encroaching American farmers forced the couple to move again—this time to Saboba, another Indian settlement. The blue-eyed baby fell ill and died after the Indian Agency doctor refused to make the thirty-mile ride to Saboba. Alessandro and Ramona then fled to a remote valley where they hoped that the American settlers would leave them alone. Again their peace was short-lived. Alessandro, driven out of his mind by worry and grief, mistakenly took a white man's horse during one of his increasingly frequent "spells" of madness. The horse's owner, Jim Farrar, was of the vicious and unforgiving type. He hunted



Helen Hunt Jackson, author and reformer of United States Indian policy. *California Historical Society/Title Insurance and Trust Photo Collection, USC.*

down Alessandro and murdered him in cold blood before Ramona's eyes. Farrar turned himself in to the sheriff but was never brought to trial because Ramona, the only witness to the murder, had taken refuge in a remote Indian village. In any case, there was little likelihood that a jury would convict a white man on the testimony of an Indian. Fortunately, Ramona did not remain a widow for long. Her foster brother Felipe (who had loved Ramona all along—as did everyone else in the book except Señora Moreno) reappeared and rescued her. They married and moved to Mexico, to start a new life far away from greedy Yankees.

Jackson based her story loosely on real people, places, and events that she had seen or learned about during her travels in southern California. As Charles Fletcher Lummis observed, all "the characters were suggested by actual people; and all of them are truthful, though not real." The inspiration for the story of Alessandro's death, for example, was the murder of an Indian named Juan Diego, who had been killed by Sam Temple, a notoriously violent individual who had accused Diego of stealing his horse. Doña Ysabel del Valle, the matriarch of the Camulos Ranch, may have been the model for the ill-tempered Señora Moreno—a comparison that did not at all please Doña del Valle.⁴

The limited success of her nonfiction work, *A Century of Dishonor*, had convinced Jackson that the story of the Mission Indians would reach a wider audience if told in fictional form. In this she was unquestionably correct, but to convert the story into a conventional romance she had to make the main characters palatable to her audience. Ramona, therefore, was made to be part-white and to display many of the traits that Euro-Americans found appealing. She was pious and kind—"a gentler, sweeter maiden never drew a breath than this same Ramona." Perhaps even more important, she possessed a physical beauty which made her an ideal heroine to Americans. "A man must be dead not to thrill at it. . . . She had just enough of olive tint in her complexion to underlie and enrich her skin without making it swarthy. Her hair was like her Indian mother's, heavy and black, but her eyes were like her father's, steel-blue." Although Alessandro was 100-percent Indian, Jackson's descriptions of him make it clear that he was superior to the average Mission Indian. He could read, play the violin, and had an Italian name (presumably because Jackson deemed the Spanish version, Alejandro, too awkward for her English-speaking readers). Perhaps most important, Alessandro's skin color was so light that he did not look like an Indian. His own tribe respected him because of these traits. "All had great affection for

Alessandro. They had looked forward to his being over them in his father's place. They knew his goodness and were proud of his superiority to themselves." In short, the characters of Ramona and Alessandro were not really Mission Indians. They more closely resembled the actors that played them in early motion pictures than genuine Native Americans.⁵

Ramona's success as a romance undercut its effectiveness as an exposé of the problems of California's Indians. For most Americans, southern California and the Mission Indians simply provided an interesting setting and exotic characters for a conventional love story. The novel might just as well have been set in ancient Rome—for all the good that it did to arouse public awareness of the conditions of Mission Indians. Rather than prompt its readers to search out

social injustice, *Ramona* [succeeded] in diverting them looking for the places where the novel's characters had lived. Even those who claimed to understand that *Ramona* was a work of fiction lost track of the boundaries between the book's story and the reality that it purported to describe. The writer Edwards Roberts visited Camulos ranch in 1886—only two years after the publication of Jackson's novel. He declared that he had found what he had sought: "the Camulos Ranch, the home of Ramona, whom 'H. H.' created, and described as living with the Señora Moreno in this house from which I wrote to-night." George Wharton James noted that thousands of photographs had been sold of a San Diego building where Ramona was reputed to have been married. "But the purchaser of the pictures seems to have forgotten that Ramona was married only in the brain of Mrs. Jack-



The Indian graveyard at Temecula, where in the novel Ramona waited while Alessandro sold his violin at the Hart-sel store. With her was an Indian woman named Carmena, who, "nearly crazed with grief," spent each night by her husband's grave. Jackson, *Ramona*, 206. This photograph appears in A. C. Vroman and T. F. Barnes, *The Genesis of the Ramona Story*, following page 286. Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Maude Collection, R-2426.

son," he wrote, "and that therefore these real bells can scarcely have rung at a fictitious marriage of a fictitious Ramona to a fictitious Alessandro by a fictitious priest after a fictitious elopement from a fictitious home of a fictitious Senora Moreno." The belief that characters and locations in the novel must correspond to real persons and real places became part of the culture of tourism in southern California. This way of thinking persists. Kevin Starr, in *Inventing the Dream*, published in 1985, lists several *Ramona* characters and their "real life" equivalents.⁶

James, while reminding us throughout the pages of his book *Through Ramona's Country* that Jackson's work was fiction, could not resist making his own contribution to Ramona lore. James claimed to have tracked down the wife, one Ramona Lugo, of Juan Diego, whose real-life murder Jackson used as the basis for Alessandro's fictional one. The "Cahuilla Ramona," as the publicist called her, lived on the Cahuilla reservation and supported herself by weaving baskets. The woman who James described was in striking contrast to the beautiful and graceful Ramona of the novel. "In appearance the Cahuilla Ramona is squat . . . fat and unattractive. With low forehead, prominent cheek bones, wide nostrils, heavy lips, she appears dull, heavy, and unimpressible." He recorded the woman's story on his graphophone and photographed her as she knelt at her husband's grave. As "I put my head under the focusing cloth of my camera," James wrote, "intending to make a picture of her standing there, she suddenly squatted down and, covering her face with her hands, began the soft wailing and sobbing that precedes the louder and more vociferous lamentations of the Indians when they have their *fiesta del Muerto*. . . . It seemed almost a sacrilege to make a photograph of her at this moment." Despite his stated hesitation at photographing this private scene, James did not allow it to go unrecorded.⁷

Some writers objected strenuously to James's claim that the "Cahuilla Ramona" was authentic. It is a sad commentary on the failure of the original purpose of Jackson's novel that some were appalled that a crude Indian could be the model for the heroine of the book. Carlyle Channing Davis and William A. Alderson in *The True Story of Ramona* thought it regrettable that a "squat Indian, with straight, coarse black hair, thick lips and high cheek bones, capable of sitting all day in a bamboo wickiup and contenting herself with the weaving of baskets" could be exchanged for "one of the most charming characters fiction has ever donated to the world of letters." Elizabeth Baker Bohan found it hard to believe that "lazy, cruel, cowardly, and covetous" creatures such as the



George Wharton James claimed this Cahuilla woman, Ramona Lugo, inspired Jackson's Ramona, and that Lugo's murdered husband, Juan Diego, was the basis for the fictional Alessandro. The accompanying caption in James's *Through Ramona's Country* read "Ramona weeping at the grave of Alessandro (Juan Diego)." Though James elsewhere stressed that *Ramona* was a work of fiction, this caption demonstrates how events of the novel sometimes came to be perceived as "true," while "reality" merited only a parenthetical, seemingly offhand, mention.

From George Wharton James, *Through Ramona's Country* (1899).

Mission Indians could produce "specimens of physical beauty and mental sublimity as Alessandro and his father." She granted Jackson this artistic license because she felt certain that the story would have been "lost by a strict adherence to fact."⁸

Authentic or not, Ramona Lugo could be photographed, and her image could be sold or printed in books and pamphlets promoting tourism in southern California. Promoters found photography to be one of their most important tools in transforming *Ramona* the social problem novel into Ramona the tourist attraction. Photographers eagerly recorded images of any person, object, or location that could have had a conceivable connection to the story. The results were the photographic equivalent of the baskets sold in curio shops reputedly woven by the



The Estudillo House, before restoration. In the novel, Alessandro and Ramona fled to San Diego, where they persuaded the local priest, Father Gaspara, to marry them. In real life, the local priest was Father Antonio Ubach, and he is commonly accepted as the model for Father Gaspara. Father Ubach lived in a few rooms in this crumbling adobe. For that reason, the building, known locally as La Casa Larga, became famous as the "marriage place of Ramona." It still stands, much restored and visited, in San Diego's Old Town. *Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Maude Collection, R-2981.*

"Real Ramona." A brief passage in the novel that indicated that the young woman "had had two years at the Convent of the Sacred Heart at Los Angeles" led photographers to a run-down old building once used by the order. The caption accompanying images of the derelict building read "School attended by Ramona in Los Angeles." The unshakable belief that the San Diego priest, Antonio Ubach, was the model for the fictional Father Gaspara who married Ramona and Alessandro was all the incentive that photographers needed to produce images of Ubach's home as "The Marriage Place of Ramona." "The old house is there, the chapel is there, and the bells are there, so why not make use of them?" James asked, in contradiction to his own words. San Gabriel Mission, already an important location on the tourist frontier in southern California, took on additional significance as Ramona's birthplace.

Two contenders vied for the all-important "Home

of Ramona"—Rancho Camulos in Ventura County and Rancho Guajome in San Diego County. Jackson is known to have visited both places. Her stay at Camulos was brief, lasting only a couple of hours. She had gone there on the recommendation of her Los Angeles friends Antonio and Mariana Coronel. Because of his relationship with Jackson, Don Antonio would play an important role in the creation of the Ramona myth. A survivor from the Mexican era in California, he was something of a historical artifact himself. Coronel had come to California in 1834 at the age of seventeen and later figured prominently in the war against the United States. A resourceful and adaptable individual, he successfully weathered the transition from Mexican California to American California and emerged as a prominent figure in the new regime. He remained active in public affairs, serving—among other things—as mayor of Los Angeles and state treasurer.

Coronel never forgot “old California” and, in his later life, became one of its leading popularizers. He assembled a large collection of artifacts that, upon his death, his widow donated to the Los Angeles Chamber of Commerce. (The chamber later gave the collection to the county museum. It now resides in the Los Angeles County Museum of Natural History.) Coronel knew a great deal about the problems of the Mission Indians and was eager to share this knowledge. Jackson talked to him many times, with Coronel’s young wife, Mariana, serving as translator. The novelist was so impressed with the Coronel home—a pleasant adobe structure surrounded by vineyards and orange groves—that she wanted to use it as the model for the place in which Ramona grew up. Don Antonio suggested Camulos instead, believing it to be one of the few remaining ranchos that preserved the flavor of the old days.¹¹

Coronel’s blessing was enough evidence in the eyes of many to make Camulos the “real” home of Ramona. Perhaps contributing just as much to its popularity, the ranch was conveniently located within walking distance of a station of the Southern Pacific

Railroad. Having to take only a two-hour train ride from Los Angeles through beautiful country, tourists found the ranch an easy place to visit. For the del Valle family, who owned Camulos, this fame proved to be a mixed blessing. While some visitors regarded the ranch as the equivalent of a shrine and treated it with respect, others displayed the bad manners that we have come to accept as typical of tourists from any age or country. With little regard for the fact that Camulos was a private home, sightseers swarmed over the grounds, picking flowers and fruit, stealing souvenirs, invading the house, and generally offending residents with their “Boston” manners. The del Valles often told the story of a young woman who walked into what she took to be Ramona’s room and threw herself on the bed so that she could claim that she had lain where the heroine of the novel had slept. At one point, the family declared Camulos off limits to a Boston excursion company whose patrons were especially troublesome.¹²

Although Jackson spent a very short time at Camulos, she apparently had a good eye for detail, for visitors claimed that the main features of the ranch were



Camulos, from the Southern Pacific Railroad station. Tourists considered “it a privilege to catch a glimpse of Camulos, as the trains of the Southern Pacific Railroad pass through the hallowed ground” (Davis and Alderson, *The True Story of Ramona*, 18). That Camulos was a two-hour train ride from Los Angeles, and a short walk from the station, contributed significantly to its development as a tourist destination. *Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Maude Collection, R-1618.*

to altar cloth found at the Camulos Rancho. In *Ramona*, Margarita, one of the servants at Camulos, carelessly tore the lace cloth that adorned the altar in the Moreno chapel. Ramona saved Margarita from certain punishment by washing and mending the cloth: "It was indeed a sorry sight. The old linen altar-cloth, the cloth which the Señora had with her own hands made into one solid front of beautiful lace of the Mexican fashion by drawing out part of the threads and sewing the remainder into intricate patterns, the cloth which had always been on the altar, when mass was said, in Margarita's and Ramona's earliest recollections,—how it lay, torn, stained, as if it had been dragged through muddy brambles. In silence, aghast, Ramona opened it out and held it up. 'How did it happen, Margarita?'" Jackson, *Ramona*, 44. Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Visual Collection, R-2998.



faithfully described in the book. "Taking 'Ramona' in hand," wrote Roberts, "one staying at Camulos can find almost every scene described." James believed that Jackson's descriptions of the fictional home closely matched the del Valle ranch. With "but one exception," he wrote, "no error can be found in the descriptions and locations at Camulos." (The exception was that, unlike the home in the novel, Camulos was not near Mission San Luis Rey.) Photographers visited and revisited Camulos, making hundreds of photographs and reproducing them in magazines, tourist brochures, illustrated editions of *Ramona*, and as individual prints. Favorite scenes included the south veranda, the courtyard, the chapel, the fountain, the grape arbor where Alessandro first saw his future wife, and the crosses which (in the novel) Señora Moreno had placed on the hills surrounding Camulos. Even a torn altar cloth that was assumed to be the very one that figured in the story was found and photographed.¹³

Residents of San Diego County naturally championed Rancho Guajome as the location of Ramona's true home. Jackson knew the ranch very well—having stayed there several times as the guest of the widow Señora Ysidora Coutts. Writing in the November 1894 issue of the *Rural Californian*, Elizabeth Baker Bohan announced that for "first time" she would reveal "the facts regarding Ramona's home." Bohan maintained that a careful examination of the story would force the reader to conclude that the location "so graphically described" in the novel could only be Guajome. "The description in the book tallies exactly with the house at Rancho Guajome, . . . [where] Helen Hunt Jackson stopped while writing the story. Bohan

cited the chapel, the washing place, and the sheep-shearing place as locations that closely matched descriptions in the novel. The fact that Guajome was only a mile and a half from the San Luis Rey Mission, a place frequently mentioned in the book, seemed additional proof that the San Diego County rancho was the true home of Ramona.¹⁴

Despite the vigor with which they argued their case, the champions of Guajome labored against the fact that Camulos had a head start as the true home of Ramona. There was also the awkward (but unavoidable) fact that Camulos seemed to fit Jackson's descriptions better than Guajome. Margaret V. Allen, a strong believer in the San Diego home, took the odd position that Guajome was the real home of Ramona even though Jackson's descriptions seemed to fit Camulos better. She maintained that Jackson used the Camulos "house and its surroundings because it fitted her purpose better than the Coutts home [Guajome], which was smaller and more modern than the home of the del Valle family." Bohan felt that the case for Camulos rested as much on its proximity to the Southern Pacific Railroad, but she ignored the fact that the Southern Pacific's rival, the Santa Fe, took a special interest in Guajome, reprinting her *Rural Californian* article with a note on the inside back cover pointing out that the "real home of Ramona is located on the line of the Santa Fe Route located four miles from Oceanside, California. Tourists who wish to see the historic old Missions and other interesting scenes should take the Santa Fé Route."¹⁵

Like the residents of Camulos, those living at Guajome found that being designated a tourist

attraction had disadvantages. When James visited the ranch, a man and a woman, without so much as saying please, boldly walked into the building and asked to be shown around. The owner complained to James that he had had to re-roof the house because photographers had broken so many tiles climbing up to find the best shot of the patio. He nailed a notice on the front door of the ranch to warn tourists to behave themselves.

Ladies and gentlemen calling here, in my absence, will kindly remain from assuming liberties in and about these premises that would be objectionable to you if exercised by strangers in your homes.

"This is private property and must be respected. Sightseers are only tolerated, NEVER WANTED!!"¹⁶

There were other places in southern California that

were assumed to be the basis for locations in the novel. Many people believed that the Wolf store near Temecula, a decrepit adobe structure, was Jackson's model for the Hartsel establishment, where poor Alessandro sold his violin after he and Ramona had eloped. An Indian graveyard nearby became the lonely place where Ramona waited in the dark while her husband sold his beloved instrument. Picturesque scenes such as Indian acorn granaries mentioned in passing in the novel were photographed and marketed as "Ramona" scenes.

The Ramona story provided the elements of tragedy that the romantic sensibilities of the nineteenth century required of tourist attractions. Jackson's determination to base her story on real places and real people and her meticulous research created the likelihood that certain southern California loca-



The patio at Rancho Guajome, the San Diego County candidate for the "true home" of Ramona.
Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Vroman Collection, V-320.



A Mission Indian woman works at an acorn granary at Agua Caliente. These granaries were described in *Ramona*: "Here and there, between the houses, were huge baskets, larger than barrels, woven of twigs, as the eagle weaves its nest, only tighter and thicker. These were the outdoor granaries; in these were kept acorns, barley, wheat, and corn. Ramona thought them, as well she might, the prettiest things she ever saw." Jackson, *Ramona*, 238. Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History, Maude Collection, R-1570.

tions would be identified as places mentioned in her book. Once such a place had been identified as part of the *Ramona* story, it underwent a transformation. No longer was it merely a ranch, adobe, or even a run-down old building, but became one of those special places where Ramona lived, got married, or went to school. Thus transformed from fictional location to a place in the real world, the site became a tourist attraction. Because it was a physical entity, photographers could take pictures of it. In the odd way that photography creates its own truth, the resulting images validated the authenticity of the story.

None of this, of course, did much to improve the lot of the Mission Indians. Sadly, Jackson's book failed completely as a social problem novel. Instead, its importance to history was that it provided the basis for one of the most important early tourist attractions in southern California. Ironically, as pro-

moters turned the fictional places where Ramona lived into real places, the Mission Indians and their problems became increasingly invisible and irrelevant to the larger society. The real tragedy was that the new society coming into being in southern California at the turn of the century could so easily integrate a romanticized version of the history of one of its victims into its own sunny success story. □

See notes beginning on page 196.

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Readers of Helen Hunt Jackson's classic novel, *Ramona: A Story*, embraced its lovely young heroine, Ramona. As the fictional tale swelled to mythical dimension, Canadian artist Henry Sandham furthered its romantic appeal with his charmingly sentimental drawings, which, beginning in 1900, illustrated several editions of the novel. Here, on the steps of the upper veranda, a distraught Ramona appeals to her foster brother Felipe for reassurance that the vanished Alessandro is alive. From *Ramona: A Story, Monterey Edition*, published by Little, Brown, and Company, 1900.

Historic Preservation and Historical Facts: Helen Hunt Jackson, Rancho Camulos, and Ramonana

by James A. Sandos

*Farquhar Professor of the Southwest, University of Redlands
with the historical architectural assistance of Edna E. Kimbro*

"SHE WAS NEVER THERE"

Lying—perhaps misrepresentation is a better word—can and has been used for competitive advantage in a variety of worthwhile endeavors. Consequently, competition for scarce funds available for historic preservation of California landmarks means that all links between a surviving structure and the state's historic past must be carefully documented. Such documentation is essential to bolster the case of a site where monies are sought both for preventing further decay and for restoring what has been lost. One well-known historic structure needing repair is the Del Valle family home, Rancho Camulos, in Ventura County near Newhall, off present-day State Highway 126.

A story as familiar as the structure is that Helen Hunt Jackson used the real Mexican house at Camulos as the model for the fictional home of Señora Moreno and her ward, Ramona, the protagonist of Jackson's famous novel *Ramona: A Story* (1884).

On a recent travel tour to Camulos, however, the author encountered the history guide announcing to his forty-two fellow passengers that Jackson had not seen Camulos, that "she was never there." Moreover, the guide continued, he had it on the "best authority" that Rancho Guajome, near Oceanside in northwestern San Diego County, was the "real" model for Señora Moreno's estate. The Camulos story, the guide's reasoning implied, was nothing more than another example of California's mythical past, a tale of pure puffery easily destroyed by the rigorous research of modern inquiry. Edna Kimbro, who had been invited to address this same group on the architecture of Camulos, received the busload that day,

unaware of the talk that had preceded the visit. Afterward, she remarked on the relative disinterest displayed by this group in comparison to others. For a guide or other spokesperson to dismiss a long-standing historical account as mere historical fiction—especially in the absence of documented evidence—has a deleterious effect on the attempts to persuade financially strapped funding agencies to contribute to the preservation of a building that possesses unique value to California's past.

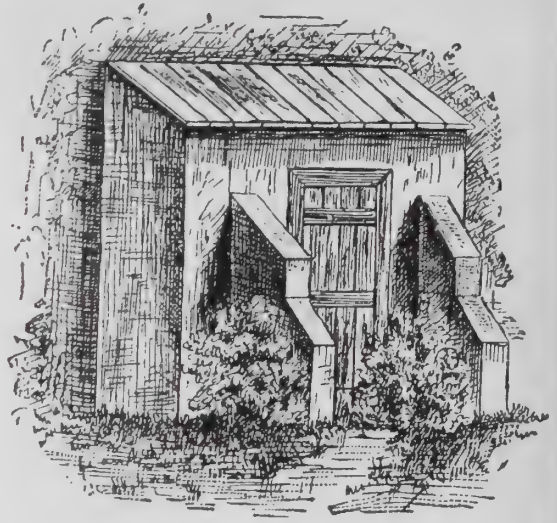
The purpose of this essay is to present in one place the diverse evidence documenting the existing story—that Jackson *did* visit Camulos and that she did use it as the model for the rancho described in *Ramona*—and place in historical context the persistent, although erroneous, allegations on behalf of other sites. Chief among these claimants are the Rancho Guajome and the Casa Estudillo—Ramona's supposed "Marriage Place"—both of which are national historic landmarks. Casa Estudillo is also a California state park, and Rancho Guajome is a San Diego County park.

JACKSON AND CAMULOS

There are three pieces of direct evidence that place Jackson at Camulos. Jackson noted in her diary on January 22, 1882: "Mrs. Del Valle's ranch [Camulos] at noon & Santa Paula at night."¹ Jackson had gone to Rancho Camulos from Los Angeles at the suggestion of Antonio Coronel and his wife, Mariana, who had given her letters of introduction to the Del Valles. Jackson was seeking a rancho that would give her a sense of times past, of the Spanish and Mexican relationship to the land and to Indians. From Santa Bar-



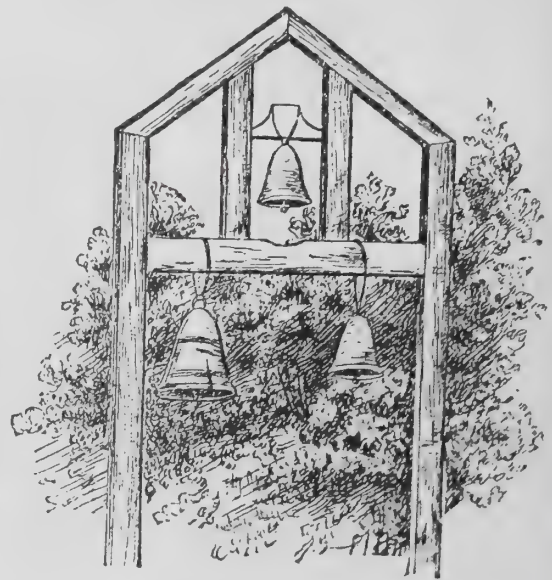
THE SOUTH VERANDA.



THE RANCH-HOUSE.



THE CHAPEL.



THE OLD BELLS.

Edwards Roberts commissioned southern California artist Henry Chapman Ford to illustrate the second Roberts Brothers edition of *Ramona* in 1886. Ford's drawings, based on buildings at the Rancho Camulos, in present-day Ventura County, are the first known illustrations of the real-life rancho where Helen Hunt Jackson drew inspiration for the novel's setting. *From Ramona: A Story*, Roberts Brothers Publishers, Boston, 1886.



Two views of the Rancho Camulos, visited by the Antonio Coronel family and photographed in 1887 by Charles Lummis. Above, Don Coronel dances with Pichona Abadie Harmer on the south veranda. Below, Lummis captures the broad south veranda of the rancho. Compare this with the identical view allegedly drawn by Ford that appears on the previous page.
Courtesy Southwest Museum, Los Angeles, N3097A, N3111.



bara, her ultimate destination on that trip, Jackson wrote to the Coronels on January 30, 1882, telling of her experience. Mrs. or Señora Del Valle was out, "so," wrote Jackson, "I only rested two hours at her house and drove on to Santa Barbara that night."² A few days later, Jackson wrote to Abbot Kinney that "[t]he Spring was delightful. Mrs. Del Valle away from home, unluckily, so I staid only the morning at her ranch: but it was a most interesting place, and the daughters, cousins, sons and sons, sons and daughters all as Mexican and un-American as heart could wish."³

Clearly, any familiarity with the published literature on Jackson and *Ramona* would have informed the tour guide from primary documents (two letters from Jackson to others) that Jackson had visited Camulos; moreover, her unpublished diary, another primary document, also confirms it. Simply put, Jackson was there.

Although *Ramona* appeared in 1884, and Jackson died the following year, evidence that Jackson used Camulos as the rancho of Señora Moreno and the home of Ramona comes from several other sources. Most of these were people who were her friends or close acquaintances. In April 1886, Edwards Roberts, of the Roberts Brothers publishing company, which first issued *Ramona* eighteen months earlier, journeyed to Rancho Camulos to describe it as Jackson had seen it. His account, matching some descriptions from *Ramona* with his own observations, first appeared as a newspaper article.⁴ It was reprinted in the 1886 edition of *Ramona*⁵; and Roberts included parts of it in his travel book *Santa Barbara and Around There*. Roberts illustrated his book, as he did his newspaper article, with drawings attributed to Henry Chapman Ford, which are the first known published sketches of Camulos, and are sequentially entitled "The South Veranda," "The Ranch House," "The Chapel," and "The Old Bells." These illustrations, unmistakably of Camulos, were included in some subsequent editions of *Ramona* containing Roberts's essay.⁶

Two years later, Charles Fletcher Lummis, the pre-eminent writer and promoter of southern California who knew Jackson, the Coronels, and nearly everyone else in the region, composed a book of photographs he had taken at Camulos in 1887, to demonstrate how Jackson had presented the ranch in *Ramona*. Lummis entitled his work *The Home Of Ramona*, and he wrote that "To Camulos she [Jackson] went; and although there but a few hours, she has drawn it to the very life. Shrewd landlords in other

places have claimed for their property some connection with the book; but that Camulos is the spot portrayed as the home of the Morenos is absolutely established."⁷ Lummis used cyanotype (a non-silver metallic film process) for his photographs, which gave them a distinctive royal blue tint. The cyanotype process is difficult to preserve, and the images have decayed.⁸ Nevertheless, the glass negatives survive, and images can be printed from them using a silver nitrate process yielding black and white prints. Lummis aimed his camera, much like the sketches attributed to Ford, at the south porch or veranda, the chapel, the bells, and other features of the ranch. Lummis also photographed Antonio Coronel dancing with the young wife of Santa Barbara painter Alexander Harmer on the south veranda at Camulos, providing visible evidence of the close relationship between the Coronels, the Del Valles, and the Harmers, and also of their connections to Lummis.⁹

In 1895, a long-time acquaintance of Jackson, Jeanne C. Carr, while composing her memoirs, noted Jackson's friendship with the Coronels and the reason that Jackson favored Camulos over any other site from the Spanish or Mexican era. Camulos, observed Carr, was a home still held by members "of the ruling class," whereas other ranchos were nothing but "the remains of the ruling class," meaning that they were owned by Americans.¹⁰ This observation provides an insight into the background behind the anti-American sentiments expressed by the major figures in the novel.

In 1899, Adam Clark Vroman and Theodore F. Barnes published an edition of *Ramona* in Los Angeles, illustrated with thirty of Vroman's photographs taken in 1895. In an introductory essay, these men reviewed the origins of the story and opined that Jackson had originally intended Rancho Guajome as the site for the Moreno home but that a dispute with the owner had led to Jackson's being barred from Guajome. Only then, they claimed, through the Coronels, did Jackson gain access to Camulos. Thus did Camulos become the model for the Moreno rancho. Guajome, however, for Vroman and Barnes, was "the most typical of all old California homes" and from their pro-American stance it *should* have been the model for the Moreno place but bad luck intervened.¹¹ Vroman's photos nonetheless carefully document the ways in which architectural features of the central compound at Rancho Camulos illustrate Jackson's prose, whereas those at Rancho Guajome do not. Vroman's comparison of the south veranda at each rancho, for example, dramatically underscores the point.¹²



This photograph of Rancho Camulos, taken by Adam Clark Vroman in 1895, became an illustration in an 1899 edition of *Ramona*. In that volume, it was captioned, "The Moreno House, South Veranda." Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History.

CAMULOS IN *RAMONA* IN JACKSON'S WORDS

Jackson's knowledge of the particulars of Camulos inform her text of *Ramona*. Specific architectural details will be discussed in the next section, but here let us observe Jackson's language in describing the house's setting and the activities within it that are particular to the Del Valle home. Jackson wrote of Señora Moreno that "It gave her unspeakable satisfaction, when the [American] Commissioners, laying out a road down the valley, ran it at the back of her house instead of past the front. 'It is well,' she said, 'Let their travel be where it belongs, behind our kitchens; and no one have sight of the front doors of our houses, except friends who have come to visit us.'"¹³

That road, today scenic Highway 126, lies north of the north, or kitchen, wing of the Rancho Camulos adobe. The adobe is a sideways-positioned, U-shaped

structure open to the east with the front entrance on the south elevation of the south wing, facing the Santa Clara River. Thus the Rancho Camulos adobe residence presents the rear elevation of the humble kitchen wing to the road. Neither Rancho Guajome, nor any other site claiming to be "Ramona's home," has the house addressing the road in this manner. Moreover, Jackson specified that the Indian family retainer, Juan Canito, sat on the "sunny veranda of the south side of the kitchen wing of the house."¹⁴ The veranda, or *corredor* (covered porch or balcony extending along the outside of a building), of the kitchen wing of the Rancho Camulos adobe faces south; Cruz Indio, the real-life counterpart to Juan Canito, slept in a small room within the kitchen wing and was photographed in the kitchen doorway.¹⁵

Jackson described the Moreno residence: "The

Right: Title page of the first edition of *Ramona*, published in 1884. *California Historical Society/Title Insurance and Trust Photo Collection, USC.*

Below: Mission bells at Rancho Camulos, photographed by Charles Lummis, 1887. Compare this with the earlier sketch done by Ford. *Courtesy Southwest Museum, Los Angeles, N42469.*



RAMONA.

A STORY.

By HELEN JACKSON
(H. H.),

AUTHOR OF "VERSES," "BITS OF TRAVEL," "BITS OF TRAVEL AT HOME,"
"BITS OF TALK ABOUT HOME MATTERS," ETC.



BOSTON:
ROBERTS BROTHERS.
1884.

house was of adobe, low, with a wide veranda on the three sides of the inner court, and a still broader one across the entire front, which looked to the south."¹⁶ Hers is a precise description of the Rancho Camulos adobe, which has verandas, or *corredores*, along the entire inner U facing a central courtyard and another on the south side of the south wing facing the *ladrillo* (brick) fountain and the chapel. This configuration is unusual and the result of the original portion of the building having front and rear *corredores* with the other wings added later with single *corredores* along the principal elevations. Note that Jackson specified *three* sides of an inner court, whereas Vroman noted in his 1913 edition of *Ramona* that the inner court of Guajome is enclosed on four sides.¹⁷

Jackson further specified that "These verandas, especially those on the inner court, were supplementary rooms to the house. The greater part of the family life went on in them. Nobody stayed inside the walls except when it was necessary." The reason for the above is clear when one considers that the bedrooms of the west wing had no windows and had solid wood-paneled doors. Jackson elaborated: "The arched veranda, along the front was a delightful place. It must have been eighty feet long, at least, for the doors of five large rooms opened on it. The two westernmost rooms had been added on, and made four steps higher than the others; which gave to that end of the veranda the look of a balcony, or loggia."¹⁸ In reality, a total of five rooms all open on the south porch, or *corredor*.

Jackson's careful observation noted crucial architectural design peculiar to the Rancho Camulos adobe: the westernmost rooms of the south wing are considerably elevated, and accessible only by a flight of stairs leading to a large landing similar to a loggia. The westernmost rooms were indeed added to the original south wing (1853) in 1861 and were deliberately constructed at a higher elevation to accommodate construction of a wine cellar beneath this portion of the building. Jackson erred only in the number of steps up to the loggia. This elevated portion of the building, which figures prominently in the story of *Ramona*, is important because it is an uncommon feature. Edna Kimbro, who conducted an inventory of historic adobe buildings for the J. Paul Getty Conservation Institute, located about 350. She personally surveyed and photographed approximately 100 adobes from Sonoma to San Diego and studied adobe buildings no longer extant in excruciating detail with historical archaeologists. This configura-

tion described by Jackson has not been observed elsewhere by Kimbro and may be a feature unique to Camulos.

CAMULOS IN *RAMONA* IN HENRY SANDHAM'S ILLUSTRATIONS

Additional powerful evidence for the case of Rancho Camulos as the Moreno home appeared in 1900 in the form of a new presentation of *Ramona*. The "Monterey Edition," published in two volumes by Little, Brown, and Company, contained Henry Sandham's illustrations and chapter headings. Some of these illustrative materials depict the architectural features singular to Camulos. Sandham, a Canadian artist, originally arrived in California in April 1882 to work with Jackson as her illustrator for the materials she was gathering for a series of articles on California Mission Indians. As she began to develop a plan, she sent Sandham to various places to sketch subjects for illustrating her points. Jackson accompanied Sandham on many of these trips. Sandham returned to California in 1883 and 1884, before Jackson died, and continued his work intermittently afterward. He did not complete his project, however, for seventeen years.¹⁹

Let us consider sequentially three of Sandham's illustrations, by title, and two of his decorative headings for chapters.²⁰ Sandham's painted illustration of Señora Moreno espied by Juan Canito at the intersection of the south and west *corredores* ("Prayers, always prayers," ME, Ch I, 9) is incontrovertibly a representation of the Del Valle adobe residence at Camulos. When the west wing was added to the south, original portion, of the building at a later date and in a rather architecturally clumsy manner, the turn of the corner was executed in an unusual way. The first *corredor* post of the newer west wing is smaller in section and less conspicuously chamfered (beveled edges on the dressing) than the earlier posts of the south wing, and is spaced very close to the last post of the original building, producing an uneven spacing and juxtaposition of dissimilar architectural elements—the posts. The peculiar spacing between the posts reflects the length of the original overhanging eave of the *corredor* roof of the southern wing. These particular architectural details are the result of the discrete construction evolution of *this* building and are not characteristic of any "style" or "type" of adobe building.

A view of the elevated portion of the south porch,



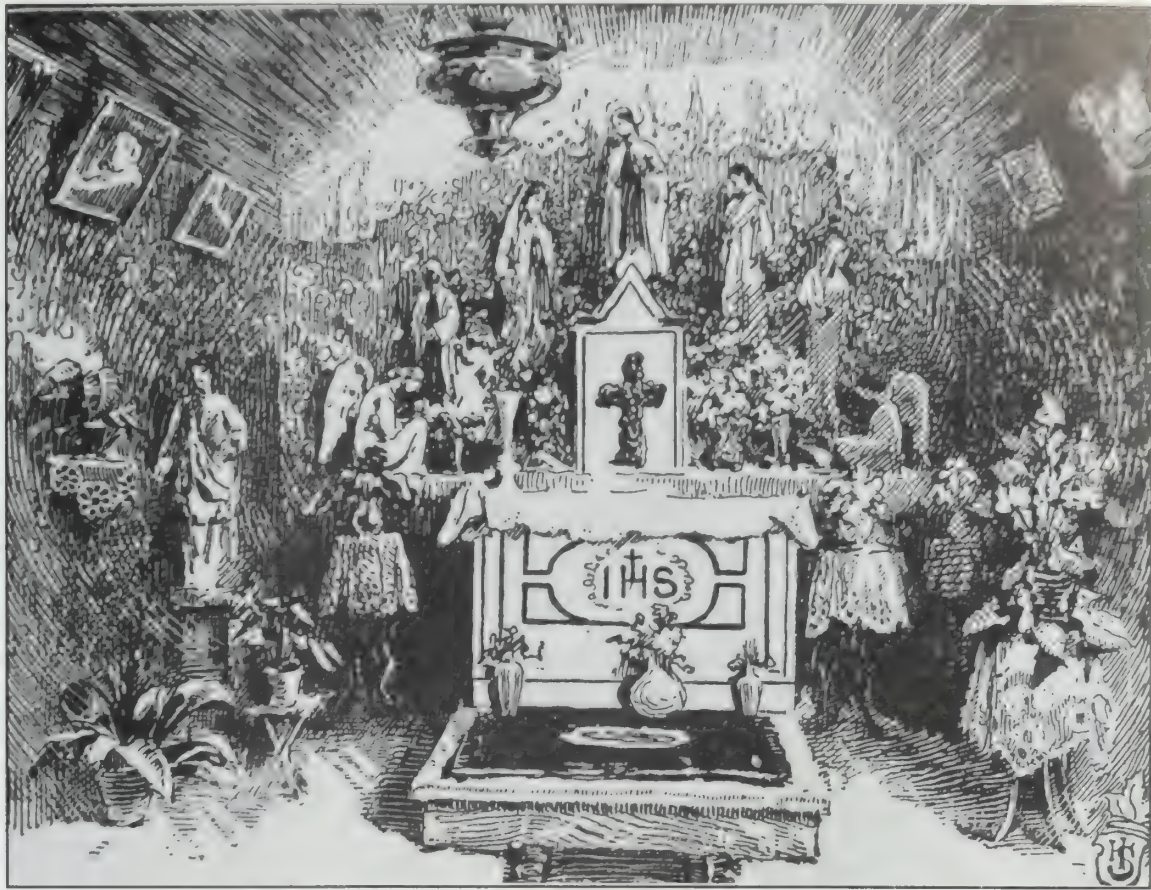
These two Vroman photographs of Rancho Guajome, which also appeared as illustrations for an 1899 edition of *Ramona*, can be contrasted with views and descriptions of the chapel and south veranda at Rancho Camulos. Courtesy Seaver Center for Western History Research, Los Angeles County Museum of Natural History.



accessible only by stairs on the south *corredor*, is featured in one of Sandham's paintings. In the course of the novel, Felipe, the señora's son, falls ill, and his mother has his bed moved to the loggia for his health. While Felipe is abed, Ramona sews and talks to him, and Alessandro, son of the chief of a band of Luiseño Indians and chief sheep-shearer for the Morenos,

plays his violin to aid in Felipe's recovery.

Thus, in the novel, the south porch's distinctive architecture is given a role in promoting health and in plot advancement. The painting entitled "When he played, he sat on the upper step," (ME, Ch IX ,178) depicts Alessandro, playing the violin while contemplating Ramona seated above him on the steps



Above: Sandham's *Interior of Camulos Chapel* became a decorative chapter heading for a Little, Brown, and Company edition of *Ramona*. The accuracy of detail in his drawing was such that during its reconstruction, chapel artifacts stored on the premises were identified and restored to the site. From *Ramona: A Story, Monterey Edition*, published by Little, Brown, and Company, 1900.

Right: In this drawing by the artist Henry Sandham, Alessandro plays his violin on the south veranda as Ramona sews near the bedside of the young, ailing Felipe Moreno, who is tended by his mother. The drawing appeared in the Little, Brown, and Company Monterey Edition of *Ramona: A Story*, in 1900. Sandham traveled with author Helen Hunt Jackson in 1882, and at other times she sent him to locations she wanted sketched for her Indian articles. Jackson died in 1885, and Sandham did not complete his *Ramona* drawings for many more years. From *Ramona: A Story, Monterey Edition*, published by Little, Brown, and Company, 1900.



leading to the loggia, where Señora Moreno tends Felipe in his outdoor bed. In a later painting, "Felipe, do you think Alessandro is dead?" (ME, Ch XIII, 285), Ramona grasps Felipe's right hand while asking her question, and both stand on the steps leading to the loggia. (See lead illustration in this article.) These two paintings clearly depict the south *corredor* of the Rancho Camulos adobe. Thus we have every reason to accept as valid Sandham's assertion that his "illustrations may, then, have this claim to a share of the reader's attention: they, at least, faithfully represent the scenes and objects as they were actually seen by Mrs. Jackson at the time of the inception of the book."²¹

Sandham also did detailed sketches that were shortened to form decorative headings for each chapter. The heading of Chapter I, "Interior of Camulos Chapel" (ME, 3), depicts the interior of the chapel surrounding the altar in such detail that it is possible to identify individual statues and paintings from Camulos inventories. It is also distinctly different from the chapel at Guajome.²² In the heading for Chapter XII, "Mission Bells, Camulos" (ME, 231), the view is partially cropped but nonetheless reveals distinctly the wooden frame supporting three bells that is unique to Camulos and that became the subject of the sketch by Henry Chapman Ford and later of postcards.²³

Sandham was Jackson's friend and sometime traveling companion as well as her illustrator. The fact that he illustrated her pet project, the novel *Ramona*, with scenes from Rancho Camulos, is strong evidence that Helen Hunt Jackson consciously and deliberately selected the real Del Valle family residence as the home of her fictional Ramona.

Direct evidence from Jackson's diary and letters, knowledge of her friends, and detailed sketches by her illustrator, all confirm both parts of the prevailing story: Jackson *was* at Camulos and she used it as a *model* to describe the home of Señora Moreno, which was also the home of the señora's ward, Ramona. Other published accounts dating from the mid-1880s to the mid-1920s reiterated this information.²⁴ Why, despite the large body of contemporary evidence at the time and the materials marshaled here, does the argument against Camulos persist? How did this seemingly clear picture become muddied? And why did a counterclaim emerge? To seek an answer we must turn to the remarkable popularity of *Ramona*, to the emergence of the phenomenon of Ramonana, and to the competition it generated for others to become part of the story.

RAMONANA

According to her most recent biographer, Jackson did not live long enough to see the impact of *Ramona* on the public, although it had sold more than 15,000 copies prior to her death, 7,000 of these within the first three months of publication. From the initial Roberts Brothers edition in November 1884 until 1968, *Ramona* went through more than 300 reprintings, the bulk of those prior to 1940.²⁵ Thirty years after its publication the Los Angeles Public Library had a constant waiting list for the 105 copies it circulated. The enormous popularity of *Ramona* inspired promoters and developers to exploit it in their efforts to lure tourists west to invest in land and to experience the sunshine. Shortly after the novel appeared, a promotion "of fantastic proportions" for *Ramona* bombarded the public with images of southern California and elevated the novel to legendary status within twenty years of Jackson's death. Journalist Carey McWilliams disapproved of this Ramonana, and also the novel and the author who were its source, but acknowledged nonetheless its transformative influence upon southern California.²⁶

Lummis took his cyanotype photographs of Camulos to document its centrality to the novel the year the "fantastic promotion" began, and he noted already that "shrewd landlords in other places have claimed some connection with the book." As time passed, promotions intensified, fueled by the search for money. In 1887 the Southern Pacific Railroad built a spur line down the Santa Clarita Valley and in July put in a stop at Camulos.²⁷ Tourists could now arrive as Jackson had been unable to do, quickly and conveniently, unencumbered by the provisions required of horse-drawn travel. And tourists spent money to see anything associated with *Ramona*, meaning that, as the number of tourists increased annually, any connection with the novel resulted in more money.

In 1894, a decade after *Ramona* first appeared, the Santa Fe Railroad, in competition with the Southern Pacific, built a spur line down the San Luis Rey Valley, using the Southern California Railway route, connecting Oceanside on the coastal route with Rancho Guajome inland, renamed on the railway map "Ramona's Home." Simultaneously, Elizabeth Baker Bohan published the first claim that Guajome was "the real home of Ramona." In her words, "the search for Ramona's home has gone steadily on and it has finally been located at Rancho Guajome, four and one-half miles from Oceanside and one and one-half miles from the San Luis Rey Mission . . . on the Santa

Rancho Guajome: The Real Home of Ramona.

AS IS well known the real home of Ramona—the heroine of Helen Hunt Jackson's famous novel of the same name—was the famous RANCHO GUAJOME, in San Diego County. The author of "Ramona" has thrown such a charm around the place by her wonderful story, that all feel it must be preserved intact. To this end a plan has been found that will prevent the destruction of this historical spot. In cutting the property up for sale—for such rich and valuable land cannot lie idle—great care has been taken by the owners to divide it in such a way that not a shadow of destruction rests upon the place.

The RANCHO GUAJOME comprises over two thousand acres of choice land in the fertile San Luis Rey valley, which is now open for settlement in small tracts. The Southern California Railway's (Santa Fe Route) branch line from Oceanside to Escondido, runs right by the property, which is six miles from Oceanside. The soil is rich and deep, and especially adapted to fruit culture, particularly the olive and the lemon. A water contract has been signed and actual operations will soon commence, and each purchaser is permitted to sign direct contract with the new Company. Special inducements are offered to syndicates. Ten or twenty acre lots will be set out to either olives or lemons, at actual cost. The land will be sold at a very reasonable price.

For further and more detailed information address:

THE RURAL CALIFORNIAN,
218 N. Main Street, Los Angeles, Cal.

A plan to divide and develop the neglected Rancho Guajome property, in part by linking it to Ramona and the land boom, led to this editorial that appeared in *The Rural Californian* in 1895. Courtesy Huntington Library.

Fe railway." Bohan based her claim on the geographical relationship between the often-referenced mission and the proximity of Guajome. The actual distance between Mission San Luis Rey and Camulos was too great to be traversed in the time described in the novel; if, however, Guajome were substituted, then times and distances corresponded to the real world. Bohan's article did not discuss architectural specifics of Camulos.²⁸

Bohan's essay originally appeared in *The Rural Californian* and concluded with a plea to preserve the Rancho Guajome, which had fallen into disrepair. The journal editor, in an advertisement, offered the general public an opportunity both to participate in historic preservation and to make money. The rich farmland, with water contracts assured "and actual operations . . . soon to commence," was "especially adapted to fruit culture, particularly the olive and the lemon." The land value derived because "the author of *Ramona* has thrown such a charm around the place by her wonderful story, that all feel it must be preserved intact."

The 2,000-acre rancho would be open for settlement in small tracts, divided "in such a way that not a shadow of destruction rests upon the place."²⁹ While nothing came of this plan, it helped establish a dubious basis for Guajome claims to be "Ramona's home." It illustrated also the disingenuousness of southern California development schemes—simultaneously transforming the land while promising not to—that have been with us for more than a century.

One reason Guajome, and later other sites, could ingratiate themselves with an indiscriminating public lay in the similarity of architectural functions found in many California ranchos. Generally the houses were built around a courtyard or patio with a central fountain. Plain gardens, kitchens with outside ovens, and a washing place for servants to do the laundry were common.³⁰ Sheds for shearing could be found on those properties that raised sheep; some ranchos had chapels to provide for private prayer and for religious services by visiting priests. These general similarities, however, had to be contrasted with

Jackson's specific descriptions, just as Vroman had meticulously done, for the interested observer to evade deception. The problem for tourists became more difficult when people who knew better made claims on behalf of Guajome.

William Coutts and his brother, Cave Coutts, Jr., the latter the owner of Guajome in the 1880s, proved most deceitful in this regard. Both men had to be careful how they couched their language, however, since Lummis, Vroman, and others knew the truth. William published a wallet-sized, four-page, folded broadside entitled *San Luis Rey Mission and the Home of Ramona*, in which he observed that "the Coutts family do not claim that Guajome, their home place, is the real Ramona's home, but tourists will have it that it is for the reasons found on the last page." On that page, eleven points called the tourists' attention to features at Guajome similar to those of the Moreno home. Among these features were "the chapel," a "sheep shearing porch," "court with fountain showing a fireplace at entrance," "the south veranda," "the washing place, etc.," and "the old grape arbor."³¹

Cave Coutts, Jr., proved most active in keeping the "Ramona's home" connection alive while pretending not to. For example, George Wharton James, a friend of Lummis and Vroman and a man who knew Camulos as the real home of Ramona, reported "Mr. [Cave] Coutts [Jr.] laughs at the idea of locating Ramona's home at Guajome. He has no love for Mrs. Jackson, and deems her characterization of the Indian as entirely false."³² But Coutts, Jr., told Vroman that Jackson and his mother, Señora Coutts, a Bandini, had had a falling out and that Jackson "left Guajome under the ban of the Señora's displeasure."³³ Thus Guajome had in fact been intended as the real site.

At a later point Coutts, Jr., told an interviewer that when Jackson visited Guajome she "was constantly inciting the Indians to rebel against the work assigned them and to demand better food." While a young man, Coutts, Jr., suffered from a scythe wound in the leg and spent some time abed, making him, in his mind at least, the model for the infirm Felipe of the novel. And yet to Coutts, Jr., "there was no excuse for her [Jackson] having used his mother as a model for [Ramona's] Señora Moreno."³⁴ In *Ramona*, Señora Moreno's pride and haughtiness are mitigated by her deep love for the Indians around her rancho. But to Vroman, "while the Señora Coutts [sic] might not have had such real sympathy for the Indians as the Señora Moreno (and indeed [Señora Moreno] was rather the extreme in this), yet she was as noble in

other ways."³⁵ Coutts, Jr., officially denied that Guajome was the home of Ramona while simultaneously reinforcing connections between Guajome, his family, and the novel, to persuade all who would listen that he held title to the real home of Ramona.

Coutts, Jr., and his brother were effective in this promotion. In 1902, a U.S. governmental commission seeking to relocate Indians displaced from Warner's Ranch considered Coutts's offer to sell Guajome and declined it. The commission included Lummis as its chair and James as a member. But in the commission's final report, Coutts was able to have inserted in the description of his rejected property the phrase "supposed by some to be the spot described by Helen Hunt Jackson in 'Ramona.'"³⁶

This "original intent" idea of the Coutses became a kind of gospel to others, and Guajome's advocates became more strident, and more illogical, over time. D. A. Hufford, in a tract riddled with inaccuracies, declaimed, "Camulos Rancho has been chronicled to the world as the home of Ramona. *It was not.*" Camulos was only the last-minute substitute for Guajome.³⁷ Carrying the point further, Margaret Allen asserted that "Mrs. Jackson never intended to make the Camulos Ranch the home of Ramona. She simply used the house and its surroundings because it fitted her purpose better than the Coutts home, which was smaller and more modern than the home of the Del Valle family."³⁸ Thus despite what Jackson had written, despite what Ford, Lummis, Vroman, and James had demonstrated, the doctrine of "original intent" continued to confuse the issue.

Confusion could also arise from ignorance. The Chautauqua Literary and Scientific Circle (C.L.S.C.) in Escondido, California, sent a description of themselves noting their proximity to Ramona's home, to the office in Cleveland, Ohio, that published their monthly magazine for "Self-Education." The Escondido C.L.S.C. sent three photographs to illustrate "Guayjonia [Guajome] Rancho—the home of Ramona." They were "Entrance to Ramona's Chapel," "Interior of Ramona's Chapel," and "Home of Ramona" all of which were views of Camulos, not Guajome, the last image being of the south veranda!³⁹

RAMONA'S MARRIAGE PLACE

Disputes between Camulos and Guajome over which was the authentic model for Ramona's home entered a new phase of contestation with the emergence and growth of a rebuilt and well-financed tourist attraction in Old Town San Diego, the Estudillo

house. The Casa Estudillo had attached itself to Ramonana as the chapel where Ramona married Alessandro, as "Ramona's Marriage Place."

The Casa Estudillo had fallen into disrepair following a fire in Old Town in 1872, and neglect ensued with the removal of the Estudillo family to Los Angeles a few years later. The Old Town property had a custodian who was powerless to prevent tourists from ripping up tiles from floor and roof, cutting slivers of wood from doorposts, and taking away anything not nailed down once word of its supposed relationship to Ramona began to circulate.⁴⁰

The cause of the interest lay in the novel and subsequent attempts to equate fiction with historical act. Undoubtedly for romantic reasons, Jackson wanted her Indian protagonists to marry in a mission and by sending them to San Diego, home of the first California mission founded by Franciscan Junípero Serra in 1769, she could slip some history into her readers' awareness. But to do so, Jackson had to cheat. Serra had ordered the original mission, on a site in present-day Old Town, moved up the valley in 1775. Alessandro and Ramona, then, would have gone to the church in Mission Valley rather than to the ruins in Old Town for their marriage. But such real conditions interfered with her romance, so Jackson ignored the fact that Mission San Diego had been moved, ignored its existence altogether, in fact, and instead sent her characters to Old Town. There, Father Gaspara, who had no church, took them to a nearby chapel and married them. In popular lore following the publication of *Ramona*, the run-down Casa Estudillo, with its old chapel, became the spot.⁴¹

Tourist interest meant tourist dollars, and an enhanced Casa Estudillo would be good for business in San Diego. In 1908, through the managing director of the Spreckels Companies, John D. Spreckels selected Hazel Wood Waterman to reconstruct the Casa Estudillo and make it look like a well-maintained Californio adobe. Waterman took the task seriously, researched old records and plans, and found a workman who could construct tiles and adobes in the original way. For two years she oversaw a reconstruction that produced a clean and fairly accurate picture of the original house with its simple furnishings and interior courtyard.⁴²

There was, however, a flaw in her work from the standpoint of business. No matter how historically accurate the Casa Estudillo now appeared, it was boring. For example, the garden Waterman reconstructed was appropriately simple. That would never do for

tourists who expected to see, and promoters who wanted them to see, a garden infused with sunshine, rich in brightly colored flowers and literally *reeking* with the sweet scents that were the signs of health for which southern California had come to stand.

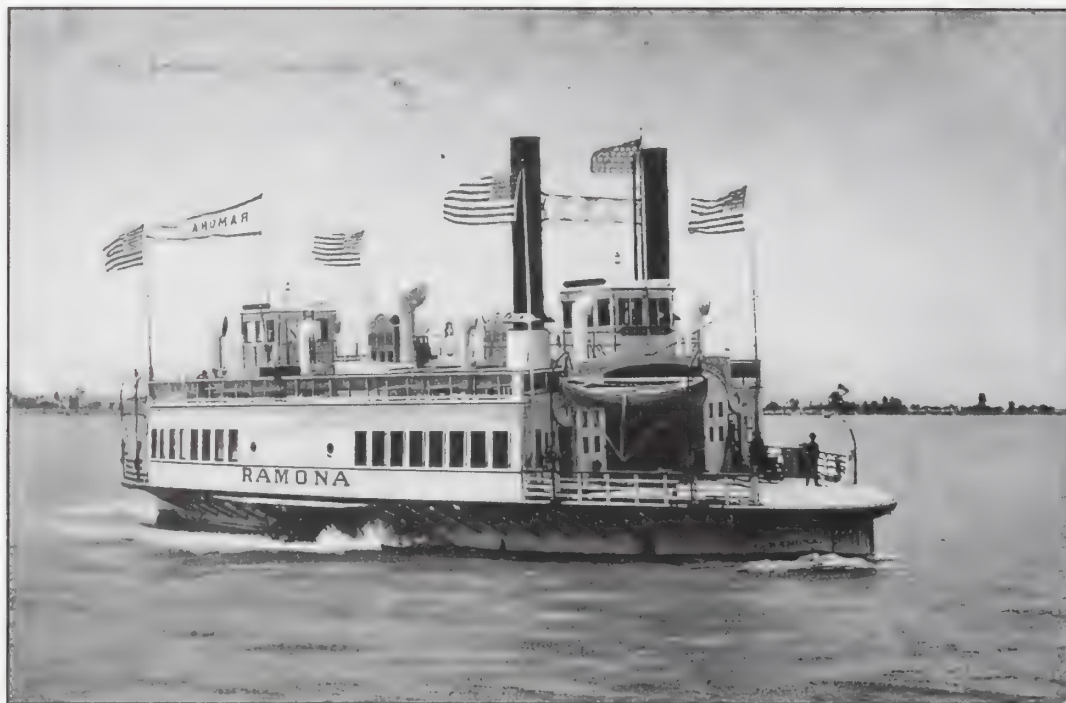
In 1910, Spreckels brought in a new manager for the site, one who would make Ramona's Marriage Place a worthy attraction for the tourists vacationing at his Hotel Del Coronado to visit in Old Town. The tourists traveled there via his electric trolley line. Spreckels gave Thomas P. "Tommy" Getz a lease with an option to buy the Estudillo house if he would make a few changes and promote its story. Tommy had been a thespian and singer of some note, and he responded to the idea. Getz developed his own one-man play of the story of the California missions and of Ramona's wedding, which he performed for twenty-four years.⁴³ But Getz began his tenure by doing something about that garden.

Massive planting with colorful flowers complemented by nearly equally massive plantings of greens and palms helped to transform the plain garden into a veritable jungle. Getz was more concerned with appearance than with historical accuracy, but he gave his garden some historical, as well as some incredible, touches. For example, Getz wrote that "the grape vine growing about the arbor has grown from a cutting taken from the grave of Napoleon at St. Helena, and is always green."⁴⁴ Perhaps the stock source was authentic, but what an astonishing evergreen accomplishment for a deciduous vine.

While visitors admired the garden's color, few knew that the *Agapanthus* from Africa and the *Begonias* from South America were contemporary additions unknown in mission or Jackson's time.⁴⁵ Getz's dramatic flare and sense of publicity, however, led him to take Ramona's Marriage Place to the forefront of tourist attention through his manipulation of that most popular talisman of Ramonana, the postcard.

THE POSTCARD WAR

The postcard, a visual representation of a place visited or of a place one would like to visit, purchased as a souvenir at the site for personal remembrance or to be mailed to friends or relatives, became an extraordinarily popular item in promoting southern California late in the nineteenth century. Journalist Carey McWilliams estimated that "picture postcards, by the tens of thousands, were published showing 'the school attended by Ramona,' 'the original home of Ramona,' 'the place where Ramona was married,' and



The ferry *Ramona* shuttling passengers between Spreckels's Coronado Hotel on Coronado Island and the city of San Diego. Spreckels's hotel guests were encouraged to ride his ferry across the bay and visit his other attraction, Casa Estudillo, purported marriage place of Ramona. *Courtesy of the author.*



A view of Hazel Wood Waterman's restoration of the courtyard and garden at the Casa Estudillo, San Diego, now part of Old Town. Although the garden was restored to reflect historic authenticity, owner and promoter John D. Spreckels ordered Thomas Getz to transform it into a lush, tropical showplace. The back cover of this issue presents one view of the result. *Courtesy Bancroft Library.*

various shots of 'the Ramona country.'"⁴⁶ But in his contempt for Ramonana, McWilliams seriously underestimated the volume of this form of ephemera. Contemporary collectors and postcard dealers believe that the volume ran to the hundreds of thousands, with the total number of cards produced numbering in the millions. This happened because the picture postcard was not purchased only by tourists. Postcards were bought by land developers, medical and health clinics, chambers of commerce, businessmen, railroads, hotels, and a host of other commercial enterprises that distributed them promiscuously by casting the widest possible net to lure new money into the region to increase business.⁴⁷

Rancho Camulos was well represented in postcards with images of the south veranda, the bells, fountain, chapel, grape arbor, and more. Rancho Guajome, however, usually appeared in one shot, that of the interior courtyard with a central fountain and embellished by greenery painted around the walkway. Guajome, unidentified as such, most frequently was misrepresented as "Ramona's Home, where Helen Hunt Jackson wrote her famous book." In reality, Jackson had written every word of the novel in the Berkeley Hotel in New York City.

Neither site, however, could compete with Getz's views of Ramona's Marriage Place. The riot of color and floral arrangements veritably leapt off the card's surface. If Camulos and Guajome had fountains, Getz had one too. And he would raise the stakes by adding a wishing well, one with a short poem inscribed above it reading: "Quaff the waters of Ramona's well/ Good luck they bring and secrets tell/ Blessed were they by sandaled friar/ So drink and wish for thy desire." And if Camulos had mission bells, then Getz had the bells that rang for Ramona's wedding, sometimes depicted as an insert to a pre-reconstruction photograph of the Casa Estudillo, wherein the external decay of the old home added to the romance and belied what was depicted in the inner court. Getz helped organize True Vow Keepers Clubs, consisting of couples married for at least fifty years who made pilgrimages to his establishment for annual picnics.⁴⁸

Getz went even farther in outdoing his competition. He sold *their* postcards at *his* establishment, each stamped with the inscription "From Ramona's Marriage Place, San Diego, California," so that the purchaser and the addressee would be reminded of Ramona's association with the Estudillo adobe.⁴⁹ A shrewd businessman, he also took advantage of the setting of the Casa Estudillo—on the plaza in Old

Town, where a large American flag flew in view of the house—to domesticate *Ramona*. The American flag had been planted there originally by John C. Fremont during the war with Mexico, so the story went, and the flag monument had become a tourist attraction in its own right. Most images of the interior court of the Casa Estudillo omitted the flag, emphasizing instead the Spanish/Mexican character of the site.

Two forces intersected to offer a seriously modified set of images of Ramona's Marriage Place in time for the 1915 Panama California Exposition in San Diego. The exposition, designed to commemorate the opening of the Panama Canal, would draw hundreds of thousands of tourists. It came on the crest of a wave of American jingoism sparked by the Spanish-American War in 1898 and rising with the pride of accomplishing trans-isthmian travel. *Ramona*, however, might offend visitors because of the anti-American sentiments Jackson so prominently vented in its pages. In it, all non-American authority figures—civil, religious, and Indian—complain of the changes wrought by American conquest and, of course, of the shameful treatment Americans accorded Mission Indians. Ramona herself, however, is too innocent and pure to utter any negative sentiments about anyone. Thus by featuring the American flag flying prominently over the courtyard, Ramona's Marriage Place could be transformed into an image of American domestic tranquility, silently dwarfing and negating the Spanish/Mexican past. In another view, showing more of the garden and the house, with the flag equally prominent, the site is renamed "Ramona's Home," completing the appropriation. Ramona's Marriage Place had become conflated with her home, and both were now American.

To reinforce how American *Ramona* had become, additional postcards were sold showing the ferry between Coronado and San Diego, named *Ramona*, with four American flags fluttering from the corners of the top deck. By 1915, *Ramona* had become an American possession, a conquest of the war with Mexico, or of the Spanish-American War, or of the Panama California Exposition, whichever one chooses. Through his entrepreneurial skill, energy, and ambition, Getz made Ramona's Marriage Place the winner in the postcard war.

AFTERMATH AND LEGACY

The postcard craze faded as did the phenomenon of Ramonana by the time the United States entered World War II. Newcomers to California lacked the knowledge and enthusiasm for *Ramona* both as novel

and as tourist attraction that earlier generations had known. And wartime upheaval was no time for anti-American sentiments. Fundamentally, times had changed. A librarian surveying the demand for *Ramona* in California in 1943 wrote that "it [*Ramona*] is on all collateral lists for high school students, of course, but the hop-skip-and-jump youngsters of today are adepts at evading volumes of over three hundred pages, especially if they move at pre-aeroplane speed."⁵⁰ The emerging jet age left *Ramona* and interest in its sites even farther behind.

Rancho Camulos passed out of the Del Valle family in 1924, and subsequent owners have struggled to keep it going, even today. Getz died in 1934, and *Ramona's* Marriage Place continued operation as a private museum until the state of California acquired it in the late 1960s to make it a state historic park. After Cave Coutts, Jr., died, his son obtained Rancho Guajome and his beneficiaries eventually sold what remained to the county of San Diego in 1973 for just over one million dollars for a county historic park. Both sites, Guajome and Casa Estudillo, were successfully nominated to become national historic landmarks (NHLs), and both entered the *National Register of Historic Places* on the same date in 1970.⁵¹

While both of these sites merit historic preservation for their architectural qualities, their claim to NHL status derived, in part, from their additional attachment to *Ramona*. For the Casa Estudillo, the claim was made in the application title itself, "Casa Estudillo/*Ramona's* Marriage Place," even though no attempt was made to "document" the site as "*Ramona's* Marriage Place." Its significance was given as "probably the finest extant example in the United States of a typical large Spanish-Mexican Colonial one-story adobe town house."⁵² Today, the Getz era is gone, the wishing well and much of his other paraphernalia put in storage, and the site operated as an historic Californio home. But on the NHL application it is also *Ramona's* Marriage Place and thus permanently associated with the novel.

Rancho Guajome made its NHL bid on the basis of exemplifying "the traditional one-story adobe hacienda with an inner and outer courtyard plan." Guajome's preservation and restoration could serve as a model of how to preserve historical heritage with pride. However, part of the historical significance of the site derived from Jackson's visit and because she "based her novel '*Ramona*' on the daily life at Guajome Rancho."⁵³ This unprovable statement repeats

William Coutts's 1902 claim to similarities in function between the home of *Ramona* described in Jackson's novel and those of Guajome, while ignoring the specific information that documents Camulos, not Guajome, as the model for *Ramona's* home.

Yet the Guajome claim to be *Ramona's* home persists. In a scholarly article about Guajome published in 1995, the Coutts family's claims were presented without a corrective comment in either text or notes.⁵⁴ In so doing, the authors lent credibility to the Couttses' assertions. When Guajome was rededicated in 1996 following earthquake repair, a San Diego County Parks historian suggested to the director of the *Ramona* Pageant, held annually in Hemet, that portraying some scenes from the play in the outdoor venue at Guajome might be propitious. He agreed. On March 23, 1997, six scenes from the *Ramona* Pageant were presented at Rancho Guajome, the site which, according to a San Diego County press release, had been used in Jackson's book.⁵⁵ The local Public Broadcast System (PBS) television channel in San Diego, through its magazine, echoed that theme, avowing that Jackson's "description of the rancho where *Ramona* grew up (under the thumb of an autocratic widow) mirrors Rancho Guajome almost exactly."⁵⁶


Thus, while the pretenders to *Ramona's* throne are national historic landmarks, the queen is in involuntary exile in southern California. Camulos's architectural significance, especially to the religious history of Indian, Spanish, Mexican, and American California, makes it a property intrinsically worth saving. Camulos, however, has been designated merely a state of California historical landmark (CHL), and such sites "do not lend themselves to operation as state parks."⁵⁷ Efforts thus far to secure nomination for NHL status, which begin with a favorable review from the California State Department of Parks and Recreation, have been to no avail. NHL status makes both Rancho Guajome and Casa Estudillo/*Ramona's* Marriage Place of highest eligibility and most competitive for state, federal, Getty, and World Monument Fund monies for preservation and site enhancement. Architectural consultant Edna Kimbro thinks that there are too many other historic sites associated with *Ramona* already listed to allow room for Camulos as an NHL.

The old Guajome-versus-Camulos rivalry can be rekindled today by those who know nothing of the past but who seek, nonetheless, to debunk that part of it with which they disagree. When the author told the historical guide Kimbro's initial reaction to his

Inner Court, Ramona's Home, San Diego, Cal.—12



From its near-ruin in the late nineteenth century, the Casa Estudillo, resurrected as the marriage place of Ramona, was restored and promoted as an important landmark of Ramonana. *Courtesy of the author.*

"she was never there" story, but that Jackson's letters and Sandham's sketches contradict that view, the guide responded that he "would like to see the footnotes," he "would like to see the evidence in print." Well, here it is. Now, let us hope that what informed people knew a century ago can become an acknowledged fact today: that Rancho Camulos was the home of *Ramona*. If we can recognize this historical fact, then the move to make Camulos eligible for historic preservation can go forward. 

See notes beginning on page 197.

James A. Sandos, Farquhar Professor of the Southwest at the University of Redlands, earned his Ph.D. from the University of California, Berkeley, in 1978, where he studied with Woodrow Borah. Within Borderlands history he has had an ongoing interest in Indian-white relations in California. His essay, "Between Crucifix and Lance: Indian-White Relations in California, 1769-1848," appeared in *Contested Eden: California Before the Gold Rush*, the first volume of the California History Gold Rush Sesquicentennial series.



Frederick S. Butman, *Mount Shasta*, ca. 1862–71. Butman, a self-taught artist who arrived in San Francisco from his native Maine in 1857, is believed to be the first California artist to devote himself exclusively to landscapes. Three of his paintings are featured in *Art of the Gold Rush*. *The Delman Collection, San Francisco*.
Photograph courtesy North Point Gallery.

Edited by James J. Rawls

Art of the Gold Rush.

By Janice T. Driesbach, Harvey L. Jones, and Katherine Church Holland. (Berkeley: University of California Press, 1998, xv, 148 pp., 75 color illustrations, 50 b/w illustrations, \$50.00 cloth, \$24.95 paper.)

Direct from Nature: The Oil Sketches of Thomas Hill.

By Janice T. Driesbach, with an essay by William H. Gerds. (Yosemite: Yosemite Association, 1997, 126 pp., 90 illustrations [most in color], \$19.95 paper.)

Paintings of California.

Introduction by Ilene Susan Fort; edited by Arnold Skolnick. (Berkeley: University of California Press, 1993, 128 pp., 92 color illustrations, \$35.00 cloth, \$16.95 paper.)

Reviewed by Alexander Nemerov, assistant professor of art history at Stanford University, and author of *Frederic Remington and Turn-of-the-Century America*.

Each of these books seeks to extol the paintings of California artists. The terms of praise, in each book, generally fall into two categories: accuracy and quality. The paintings are said to be accurate depictions of either the facts or the "myth" of California places and events. Particularly in *Art of the Gold Rush* and *Direct from Nature*, the paintings are also said to be "compelling," "engaging," and "charming"—works of "high artistic quality." For the most part, the authors ignore histories and ideologies of image-making. They also largely ignore (or at best fitfully employ) recent critical scholarship on nineteenth-century American art. This is unfortunate, since concentrating upon such histories, and using this scholarship, would have made the paintings in question still more vivid and interesting—not just for other scholars but for general audiences.

Art of the Gold Rush is, in many ways, easily the most valuable book of the three. As the catalogue accompaniment to the 1998-99 exhibition of the same name, the book provides an extremely useful survey of gold-rush art, with many color illustrations and a section of capsule artist biographies at the back. To have all of this information in one volume will make teaching gold-rush art practicable in a way it has not been before. As an informative account of a phase of California art history, I count the book almost in the same league as Susan Landauer's excellent *San Francisco School of Abstract Expressionism*, the catalogue to her 1996 exhibition at the San Francisco Museum of Modern Art.

That said, it is this very survey nature that is the main disappointing feature of *Art of the Gold Rush*. The authors choose to divide the book into chapters based on chronology (separating the first artists to visit the Gold Country from the more nostalgic painters later on); by genre (separating portrait from genre painters); and by nationality (separating the German artists

from the American ones). However understandable and helpful these choices may be, they unfortunately focus the audience's attention on questions of the artists' biographies, the quality of their art, and the kinds of mining scenes and landscapes their paintings seem to reflect. As a result, the authors greatly ignore the way the images invent gold-rush-era California in historically and ideologically specific ways.

For example, Thomas A. Ayres's *Bay of San Francisco County* is one of many panorama-type images reproduced or mentioned in *Art of the Gold Rush*. Besides Ayres, William Smith Jewett, Charles Christian Nahl, and George Tirrell, among others, were all asked to make, or did make, panoramas in 1850s California, according to the work of Driesbach and Jones. (One thinks also of Robert H. Vance's daguerreotype panorama of San Francisco from the same decade.) This list, further, does not even include the explicit or implicit panoramic vistas shown in conventional easel paintings such as Jewett's *Grayson Family* or E. Hall Martin's *Mountain Jack and a Wandering Miner*. The essays in *Art of the Gold Rush* treat these panoramas either as transcriptions of what San Francisco looked like (which in some sense they are), or as individual works in the artists' careers. Yet I think Driesbach and Jones could have expanded on their productive research to ask more penetrating art historical questions—questions not so much about what this imagery depicts as about the mode of imaging itself.

Art historian Alan Wallach, among others, has argued that the panorama encoded middle-class hegemony in the nineteenth century: by installing the viewer in a commanding position and rendering the entire world visible and comprehensible, the panorama gave that viewer a sense of his own power. For mid-century California artists and patrons to be so preoccupied with this panoramic mode of vision suggests that questions of visual control were important in gold-rush-era California. To analyze gold-rush art in this way—to ask what was at stake, not in the ground but in a specific visual form—would mean focusing on the images themselves, rather than only on the worlds they purportedly document or the individual artistic careers they help mark.

Other examples of this inattention to imagery come to mind. *Art of the Gold Rush* includes a number of characteristic mid-nineteenth-century paintings sometimes called "middle landscapes," so named because they show human settlements in a more or less peaceful, balanced relation to nature. This type of painting, which became popular during the expansionist 1840s and 1850s, effectively domesticated the pessimistic landscape formulas of Thomas Cole, the leading landscape painter of the previous artistic generation. Far less convinced of the value of progress, Cole

The reviews that appeared in the Summer 1998 issue of *California History* were an early, uncorrected version. The editors regret the mistake.

showed nature as a dark, looming presence: the mountain's brow clouds with storms; the mountain itself, thrust into the mid-ground, dominating the pictorial space, confronts the viewer aggressively. In middle landscapes, by contrast, the mountain is pushed into the distance; the sky above it clears; the inhabitants of the valley below need not fear landslides and lightning-strikes. Nature, by the 1850s, no longer disputes, but sanctions, human settlement. In discussing such middle landscapes in gold-rush art, however, Driesbach mostly mentions only the accuracy or quality of the work, choosing not to address the history of this particularly rich landscape form. For example, of John Woodhouse Audubon's watercolor *Twenty-five Miles West of Jesus Maria* (1850), she writes, "The fine detail given to the tents, figures, and trees amongst the broad watercolor washes attests to Audubon's considerable skill as a draftsman." However much this may be true—the picture is indeed a fine work of art—it might have been more interesting to ask how Audubon here manipulated historically specific codes of representation in order to *invent* an image in which nature more or less benignly oversees settlement. Excepting some fine insights from Jones on the pictorial structure of Nahl and Wenderoth's *Miners in the Sierra* and Narjot's *Placer Operations at Foster's Bar*, and from Driesbach on the relation of Martin's *Prospector* to Ingres's *Oedipus and the Sphinx*, *Art of the Gold Rush* reduces mid-century California artists to mere copiers of events and people. The artists may show various inventions—cradles, long-toms, sluices, and so on—but they themselves remain largely uncredited, in this book, for inventing the way California was shown.

A similar inattention to histories of image-making characterizes Driesbach's *Direct from Nature: The Oil Sketches of Thomas Hill*, the catalogue to her 1997 exhibition at the Crocker Art Museum. Driesbach's thesis is that the large paintings for which Hill is best known—works such as *The Driving of the Last Spike*—"incompletely represent" the artist; and that it is therefore preferable to focus upon his small, quickly executed oil sketches to appreciate Hill as an artist and to understand something about the context in which he worked (p. 11). Driesbach might have made Hill more interesting, however, if she had focused less on connoisseurial appraisal and more on histories of image-making. (William Gerds, in a short essay at the end of the catalogue, does provide an informative history of the oil sketch and oil study in nineteenth-century American art, though he hardly mentions Hill.) Statements from Driesbach such as "The composition's cohesiveness engages the viewer," or "Hill's abilities were becoming quite substantial," substitute connoisseurial assertion for *engagement* with Hill's paintings (p. 18). One form of this engagement might have been to analyze Hill's work within the ideologized context of American landscape painting.

For example, if mid-century painters tamed the darker energies of Cole's landscapes, rendering nature safe as an emblem of nationalism, what did it mean for Thomas Hill to produce these same middle landscapes, and even some Colean views, throughout the latter half of the century? It is a worthwhile question: in the period 1825-1885, how did the mountain in the distance go, roughly speaking, from hulking emblem of a wrathful God (in

Cole's work), to benevolent leviathan attesting to national greatness (in Frederic Church's work), to perfunctory object of a benumbed touristic gaze (in Hill's work)? Driesbach does provide much interesting information about Hill as an artist supplying to tourists. Particularly compelling is her description of the artist's Wawona studio—a building strategically located to ensure tourist visitors and full, like a gift shop, not just of paintings but "trophies, Indian baskets, and other Western items . . . for sale" (p. 86). Yet Driesbach is so intent on asserting the quality of Hill's paintings that she forsakes the worthy historical questions that her own research has raised. The irony, further, is that it is only by virtue of asking these historical questions that Hill's work might become vivid in the way Driesbach would like. To see Hill as the skillful, unthinking practitioner of outmoded pictorial effects—the deft maker of empty pictures—or just otherwise to make any kind of historical argument about the paintings (Driesbach's essay is only a chronological biography of Hill interspersed with observations and information about the sketches), would make the artist and his pictures much worthier subjects of our attention.

By contrast, Ilene Susan Fort's introductory essay, in the small picture book *Paintings of California*, is somewhat more attentive to the *activity* of image-making. Discussing the history of California images dating from the Gold Rush to the present day, Fort refers often to artists employing symbols or icons of the state: sequoias, Monterey pines, citrus orchards, automobiles, highways, swimming pools, among other objects. The use of those words, "symbol" or "icon," suggests the way images make meanings rather than reflect worlds, as in Fort's nice point: ". . . in David Hockney's paintings the private swimming pool has become an icon signifying the luxurious lifestyle of the California dream" (p. 17).

Yet Fort also equivocates about how paintings work. She concludes her essay, "The paintings of California in the past century-and-a-half clearly demonstrate that the place is truly 'the stuff that dreams are made of'" (p. 24). The use of the word "truly," followed by a phrase in quotation marks, epitomizes the equivocation. "Truly" implies that California really was, and is, an Edenic or dream-like place that the paintings simply transcribe. The phrase in quotation marks, it is true, implies that what the paintings dutifully copy is only the idea—the fantasy—of California. But in either case, the paintings are reduced to passive illustrations.

This equivocation in *Paintings of California* is not just between images as makers or reflectors of meaning. It is also between revisionist history and uncritical celebration. Fort's essay contains much useful social history; it does not shy from mentioning environmental decimation. Yet these references occur within a generally celebratory tone: "the myth of a better life will prevail," Fort concludes about the meaning of California (p. 24). This combination of revisionist and boosterist modes shows, from one point of view, the positive inroads of the New Western History on celebratory accounts of western art. From another point of view, however, the combinations of revisionism and boosterism show the capacity of largely celebratory accounts such as *Paintings of Cal-*



J. D. Borthwick, *Our Camp on Weaver Creek*. From *Three Years in California*, 1857. Borthwick, one of more than one hundred writers included in *Gold Rush: A Literary Exploration*, not only kept a detailed journal of his mining experiences in California but provided lively illustrations as well. Photo reproduction by Instructional Media Center, California State University, Hayward.

ifornia to acknowledge only in order to transcend the difficult questions raised by the New Western Historians. Not everything has been easy and, sure, there have been problems, *Paintings of California* acknowledges, but the art of California and the state itself remain, for the most part, sun-filled spaces showing or enacting the fact that "the myth of a better life will prevail." It has become the fate of the New Western History, in other words, to create a few more qualifications and clauses in one's upbeat sentences, but not seriously to endanger the task of uncritical celebration.

It might be said, last, that this review represents an academic's unfair viewpoint of curatorial productions. Driesbach is curator of art at the Crocker Art Museum; Jones is senior curator of art at the Oakland Museum of California; Fort is curator of American art at the Los Angeles County Museum of Art. Proposing a more critical-historical account of California art—one much more attentive to the way that images make meanings in ideologically inflected ways—could issue only from one, let us say, severely unacquainted with the realities of curatorial practice. Museum-goers and exhibition catalogue readers alike—I'm guessing the refutation might go—would neither want nor understand such critical work. Perhaps this is true. Yet I cannot help but think that turning the paintings into more active productions of meaning might make more active and engaged museum-goers and readers too.

Gold Rush: A Literary Exploration.

Edited by Michael Kowalewski. (Berkeley: Heyday Books, 1997, xxxi, 477 pp., illustrations, author index, \$18.48 paper.)

Reviewed by Malcolm J. Rohrbough, professor of history at the University of Iowa and author of *Days of Gold: The California Gold Rush and the American Experience* (University of California Press, 1997).

The California Gold Rush is being celebrated over three years as an event of great significance in the history of the state and the nation. This book of readings will mark one of the high points of that celebration. Michael Kowalewski has brought together writings by a wide array of authors over a hundred and fifty years centered around the Gold Rush and its lasting influence. To more than a hundred selections he has added sixty-three illustrations and an effective introduction. It is an impressive format, and the contents more than live up to it.

Kowalewski has chosen to have brief selections from many authors. This strategy works well. The celebrated "Dame Shirley," at eleven pages, is the longest in a book in which most excerpts are far shorter and some only a single page. The editor has grouped his materials into four chronological parts. The first,

"Before the Rush," gives us some sense of Alta California in the twenty years before the discovery of gold, and it closes with the accounts of James W. Marshall and John Sutter. The second, "Getting There," is about the voyages of Forty-Niners overland and by sea, with some contemporary accounts and others written many years later. The third section, "Gold Rush Life," has the largest number of contributors and includes the standard gold-rush observers (from Alonzo Delano to Bayard Taylor), representatives of many nations (Ernest de Massey, Friedrich Gerstacker, Tse Chong-Chee, and Joseph Heco) who came to California in search of gold, and important literary figures (Ralph Waldo Emerson, Henry David Thoreau, and Charles Dickens). Here the editor has chosen with great imagination, and edited judiciously. The fourth and final section, "Legacies," gives this collection a national character. Kowalewski has selected twenty-eight authors to represent the long-lasting legacy of the Gold Rush. His selections begin with Prentice Mulford and Mark Twain and run through John Muir and Mary Austin to Robert Frost and Czeslaw Milosz. It is an exciting closing to an admirable book.

The illustrations are splendid, and Heyday Books has done a fine job of book production.

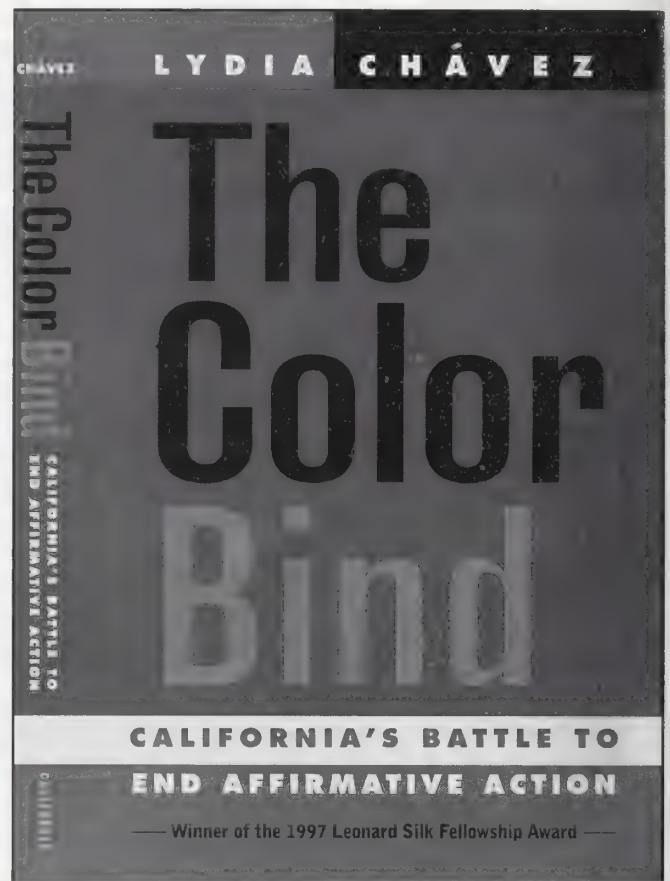
The Color Bind: California's Battle to End Affirmative Action.

By Lydia Chávez. (Berkeley: University of California Press, 1998, xiv, 305 pp., \$40.00 cloth, \$16.95 paper.)

Reviewed by Charles Wollenberg, instructor of history, Vista College, and author of All Deliberate Speed: Segregation and Exclusion in California Schools, 1855-1975 (1976), and a forthcoming history of Berkeley.

The law of unintended consequences often applies in politics. Short-term political victories can sometimes have contradictory long-term effects. Lyndon Johnson won the 1964 presidential election by a large margin, but Barry Goldwater's losing campaign established the foundation for the conservative Republican revival and the "Reagan Revolution" that followed. Similarly, California Republican Governor Pete Wilson's recent electoral victories on Proposition 187, limiting public services to undocumented aliens, and Proposition 209, outlawing state affirmative action programs, may alienate non-white voters, ultimately denying Republicans the support of a growing portion of the state's emerging multiethnic majority. Ironically, the long-term, unintended consequence of these Republican propositions may well be a Democratic revival. If this turns out to be the case, future historians trying to understand the confusing politics of the 1990s would do well to consult Lydia Chávez's excellent account of the 1995-96 Proposition 209 initiative campaign.

A journalism professor at U.C. Berkeley and a former reporter for the *New York Times* and the *Los Angeles Times*, Chávez is an



Courtesy University of California Press.

affirmative action advocate and an opponent of 209. Nevertheless, she gives the initiative's supporters a fair hearing, particularly Glynn Custred and Thomas Wood, the Bay Area academics who created the proposition. She also gives a balanced picture of Ward Connerly, the U.C. regent who emerged as leader and chief spokesman for the campaign. However, Chávez has little sympathy for Pete Wilson, who is portrayed as cynically employing 209 as a "wedge issue" to separate white male voters from the Democratic Party and promote his presidential ambitions. Wilson's support for 209 was crucial, giving the initiative Republican financial backing and much-needed political credibility.

By contrast, 209's opponents never had the backing of state Democratic Party leaders, and Bill Clinton avoided taking a clear stand against the initiative. The opposition became hopelessly split between feminists and civil rights advocates and between activists favoring an all-out defense of affirmative action and those adopting Clinton's "mend it, not end it" strategy. Although 209 supporters also had internal conflicts and problems with the Dole/Kemp campaign, Chávez particularly credits conservative consultant Arnold Steinberg with keeping the pro-209 effort focused and "on-message."

The book is in part a critique of initiative politics, and Chávez, like many contemporary scholars, gives a depressing picture of a process that was supposed to serve the common people. The 209 lesson seems to be that only interests and individuals with access to very big money can afford to get measures on the bal-

ot, let alone passed by the voters. Chavez concludes that emotional issues "can be manipulated all too easily by politicians to win votes in a manner that tramples on the rights of vulnerable minorities." She believes the process "desperately needs reform," but the only specific change she recommends is requiring accurate wording in initiative texts and ballot summaries.

The book is a fine piece of journalism: thorough research, intelligent observation and analysis, and extensive on-the-record interviews. There is no resort to extraneous gossip or off-the-record "inside information." But the work lacks historical perspective. When Chávez contends that 209 was "the first time that a sizable portion of the American public voted directly on a civil rights measure," she ignores California's 1921 initiative strengthening the state's alien land laws or the 1964 proposition overturning California's fair housing act.

In the end, Proposition 209 won but failed miserably as a Republican "wedge issue." Bill Clinton captured the California vote, and state Democrats won control of the legislature and gained congressional seats. Prop 209 also failed to ignite Pete Wilson's doomed presidential bid. Due in part to the grassroots organizing described in the book, non-whites voted overwhelmingly against the initiative, and the Latino proportion of California voters increased by 30 percent. Chávez quotes the chair of the state Republican Party as saying that "it would take years" for the party to recover from the damage caused by the "victories" of propositions 187 and 209.

The Color Bind tells a fascinating story and in the process chronicles the political manifestations of some important underlying social changes affecting the state and nation. The book is required reading for anyone trying to understand the complex and contradictory nature of current California politics.

African Americans in the West: A Bibliography of Secondary Sources.

Compiled by Bruce A. Glasrud. (Alpine, Tex.: Center for Big Bend Studies, Sul Ross State University, 1998, xiii, 189 pp., \$20.00 paper.)

Reviewed by Gerald Horne, professor of African-American studies at the University of North Carolina-Chapel Hill and author of *Fire This Time: The Watts Uprising and the 1960s*.

There has been an explosion of research on the once-neglected subject of African Americans in the West. Douglas Daniels, Albert S. Broussard, and Shirley Ann Moore have been among the many scholars who have unearthed new revelations about this important subject. Suggestive of the richness and quantity of this new literature is the publication of this new bibliography compiled by Bruce A. Glasrud, who has published widely on black Texas.

The breadth of this bibliography is quite expansive, stretching from Missouri to Alaska and Hawaii. There are particularly

strong sections on "Black Seminoles," "Cowboys," and "Buffalo Soldiers." Strikingly, there are useful sections listing relevant fiction and motion pictures.

This work is not only a useful research tool, but also worthwhile to read; for example, the section on Texas includes references to the "African Slave Trade" in that state, from "1816-1860." Given the common viewpoint that this odious commerce ended in about 1808, these references not only cause one to reflect on the nature and relatively recent origins of portions of the African-derived population in this nation but also raise special questions about Afro-Texans particularly.

Perhaps understandably—given the research bent of the compiler—this work is much stronger on Texas than other regions. For example, the section on California neglects some of the recent work on what are arguably the defining events for African Americans in the West—the civil unrest in Los Angeles in 1965 and 1992. Nevertheless, this is a minor quibble when one considers all of the worthy assets of this volume—these assets include useful photographs scattered throughout the text. Of course, this is not the first attempt to compile a bibliography on this subject. The bibliography in Quintard Taylor's magisterial *In Search of the Racial Frontier: African Americans in the American West* comes quickly to mind. Shirley Ann Moore's historiography of African Americans in California, published in *California History* in 1996, is also worthy of note.

Still, it cannot be denied that libraries and scholars interested in this subject cannot afford to neglect this important bibliography.

Memory and Imagination: The Legacy of Maidu Artist Frank Day.

By Rebecca Dobkins, with Frank R. LaPena and Carey T. Caldwell. (Oakland: Oakland Museum of California, 1997, xiii, 106 pp., \$24.95 paper.)

Reviewed by Robert R. McCoy, research associate at the Costo Historical and Linguistic Native American Research Center, University of California, Riverside.

The visual arts often provide new and unique forms of communicating the memory of a community or group. The power of Frank Day's work lies in its ability to communicate the cultural memory of the Maidu (living in the area north of Sacramento) and the dynamic imagination of Day as a cultural mediator between the Maidu and other communities in California and the United States. The exhibition and accompanying catalog provide significant insight into Day's life and work.

The initial chapters of the catalog place Day within a historical and art historical context. Rebecca Dobkins sensitively presents a brief introduction to Maidu history and a short narrative of Day's life and artistic endeavors. The strength of this presentation lies in Dobkins's refusal to limit Day's painting or cul-

tural mediation within these historical frameworks. She creates a picture of Frank Day as a complex and multi-faceted participant in his own Maidu culture and in certain aspects of the surrounding culture. Rebecca Dobkins does not portray Day or the Maidu community as a static entity or frozen in time and space. Instead, she paints both as vibrant and adaptive entities, seeking to preserve and strengthen cultural memory through creative and imaginative means.

The bulk of the catalog focuses on Frank Day's paintings included in the Oakland Museum's exhibition. The first group of paintings attempts to show Day's progression and development as an artist. Sections centering on paintings depicting historical events, cultural memory, and Day's interpretation of Maidu myth, legend, and ritual follow this first grouping. When they are known, Dobkins includes Day's comments and interpretation of the cultural practices he captures on canvas. While Day's own views provide valuable insight, the viewer is encouraged to engage the works on a personal level and attempt to understand Day's portrayals of Maidu culture and life.

Some of the most interesting reflections on Day's life, work, and legacy are found in Frank LaPena's personal remembrances. LaPena's remarks show the importance and depth of Day's contributions to preserving and teaching others about Maidu culture and practice. In particular, LaPena mentions the significant role the artist played in the formation of the Maidu Dancers and Traditionalists, and notes the creative and visionary energy that Day expended to preserve cultural memory through his art, relationships, and involvement in renewing Maidu dance and song.

The catalog ends with short, compelling essays by or about three contemporary Maidu artists. All three mention the power of Day's art and his impact on their lives and work, noting that Day's imagery is accessible and pointing to his energy and devotion as models for their personal and artistic lives.

The contributors to the exhibition catalog have created an informative, easy to read, and sensitive portrayal of Day as an artist and cross-cultural communicator.

A Voyage to California, the Sandwich Islands, & Around the World in the Years 1826–1829.

By Auguste Duhaut-Cilly. Translated and edited by August Frugé and Neal Harlow (San Francisco: The Book Club of California, 1997, xxix, 252 pp., \$105 cloth, 350 copies printed).

Reviewed by James A. Sandos, Farquhar Professor of the Southwest at the University of Redlands and author of "Between Crucifix and Lance: Indian-White Relations in California, 1769–1848," in Contested Eden: California Before the Gold Rush, Ramón Gutiérrez and Richard Orsi, eds. (University of California Press, 1998).

This book is important to all those interested in early California history. Auguste Duhaut-Cilly, a French sea captain and master of a merchant ship, the *Héros*, spent nearly two years coasting the Spanish and Russian settlements, visiting ports and presidios, riding into the interior to visit pueblos and missions, and dealing extensively with priests, government officials, and businessmen, all in a quest to sell and obtain trade goods. Frugé, director emeritus of the University of California Press, and Harlow, emeritus dean of the Library School at Rutgers University, have combined their formidable skills to recover for us in English the firsthand account of the man described by Hubert Howe Bancroft as the traveler who had more extensive "opportunities for observation . . . than those of any foreign visitor who preceded him."

Duhaut-Cilly's remarkable place in California history lies primarily in his access to the missions when these large-scale enterprises were at their peak and shortly before secularization destroyed them. Duhaut-Cilly was a clear-eyed, intelligent, and even-handed witness who enjoyed the priests' confidence because, in his own words, "they were happy to deal with a captain of their own faith. Never would they have discussed these matters with an American or an Englishman." Then, with the precision of a jeweler evaluating a gemstone, Duhaut-Cilly adds that the priests' "good will and tolerance made them truly hospitable to everyone, but between simple courtesy and complete confidence there is a world of difference" (p. 68).

Duhaut-Cilly has been more known about than known because the original French volumes are rare and incomplete; the Italian edition, while complete and the one that Bancroft used, was equally scarce; and the only English-language version, a partial translation by Charles Franklin Carter published in the *California Historical Society Quarterly* in 1929, failed to capture the feel of Duhaut-Cilly's prose and made no attempt to understand the stories behind and within Duhaut-Cilly's visit. All of that has been forever changed by Frugé and Harlow. Thanks to them we now can read the vivid prose of a literate writer, and their sleuthing has revealed the full story and even identified the villain of the piece—the man Duhaut-Cilly refers to only as "Monsieur R—" —as Jean-Baptiste Rives.

Reading this limited edition of *A Voyage . . .* is a joy. While spare, the annotations seem designed not to intrude on the reader's involvement with the text. The Book Club of California has printed this on fine paper, with chapter openings in two colors and the binding a patterned paper over boards with linen spine. Illustrations are of particularly high quality including four by Duhaut-Cilly, of Monterey, Mission San Luis Rey, Fort Ross, and Honolulu. The only known portrait of Duhaut-Cilly himself is reproduced as the frontispiece. Holding this work underscores the pleasure reading a book can impart, one that is not experienced when examining texts on the World Wide Web.

This work deserves a wider audience than a limited edition publication. It stands with Donald C. Cutter's *Writing of Mariano Payeras* (1995) and Rose Marie Beebe's and Robert M. Senkewicz's rendition of Antonio María Osio's *The History of Alta California* (1996) as part of the recent recovery for the contemporary world of invaluable but hidden observations from California's early history.

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Barker, Malcolm E., comp. *Three Fearful Days: San Francisco Memoirs of the 1906 Earthquake and Fire*. San Francisco: Londonborn Publications, 1998. \$16.95 (paper) ISBN: 0-930235-06-1. Order from: Londonborn Publications; P. O. Box 77246; San Francisco, CA 94107-0246.

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The California Checklist provides notice of publication of books, pamphlets, and monographs pertaining to the history of California. Readers knowing of recent publications including reprints or revised editions that need additional publicity, are requested to send the following bibliographical information to the Checklist Editor for this list: Author, title, name and address of publisher, date of publication, price, binding (cloth or paper), International Standard Book Number (ISBN), and order address. Checklist information should be mailed to: Charles N. Johnson, Checklist Editor, Ventura County Museum of History and Art, 100 East Main Street, Ventura, CA 93001.

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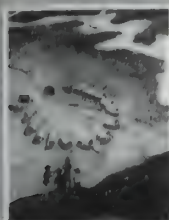
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rushes
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1886

▼
Foreign
coins flood
market



1929

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is as good
as gold



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Advent
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ATM



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Rothman, "Stumbling toward the Millennium," pp. 140-55.

1. John R. Logan and Harvey L. Molotch, *Urban Fortunes: The Political Economy of Place* (Berkeley: University of California Press, 1987); Karl Kim, "Tourism on Our Terms: Tourism Planning in Hawaii" (Western Governors' Association, 1991), 14.
2. Dean McCannell, *The Tourist: A New Theory of the Leisure Class* (New York: Schocken Books, 1976), 91-98.
3. I owe the concept of scripted space to Norman M. Klein, "The Politics of Scripted Space: [Las] Vegas and Reno," Keynote Address, Nevada Historical Society, Fifth Biennial Conference on Nevada History, May 20, 1997; Cynthia Weiss, conversation with author, February 1993; Mike Davis, *City of Quartz: Excavating the Future in Los Angeles* (New York: Verso, 1991).
4. Edward Abbey, *Desert Solitaire* (Tucson: University of Arizona Press, 1968, 1998), 54-70.
5. I attended this party; many thanks to Michael P. Cohen for unpacking the paradigm of climbing gyms as he explained his unpublished paper, "The Climbing Gym: An Environmental History."
6. John Krakauer, *Into Thin Air: A Personal Account of the Mt. Everest Disaster* (New York: Villard, 1997).
7. Pauline Maier, *American Scripture: Making the Declaration of Independence* (New York: Alfred A. Knopf, 1997); Alan Taylor, "Pluribus," *The New Republic*, June 30, 1997, 34-38.
8. William Kittredge and Annick Smith, eds., *The Last Best Place: A Montana Anthology* (Seattle: University of Washington Press, 1990); David Wrobel, *The End of American Exceptionalism* (Lawrence: University Press of Kansas, 1994).

9. Kim, "Tourism on Our Terms," 8-9.
10. William Dean Howells, "The Problem of the Summer," in *Literature and Life* (New York: Harper Brothers, 1902), 216-17; Gary S. Becker, *Accounting for Tastes* (Cambridge: Harvard University Press, 1996).
11. Daniel T. Rodgers, *The Work Ethic in Industrial America, 1850-1920* (Chicago: University of Chicago Press, 1978); William Leach, *Land of Desire: Merchants, Power, and the Rise of a New American Culture* (New York: Random House, 1993); T. J. Jackson Lears, *Fables of Abundance: A Cultural History of Advertising in America* (New York: Basic Books, 1996).
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13. Christopher Lasch, *The Revolt of the Elites & the Betrayal of Democracy* (New York: W. W. Norton, 1995).
14. Mark Edmundson, "On the Uses of a Liberal Education As Lite Entertainment for Bored College Students," *Harper's*, September 1997, 40-41.
15. Sunnyside Inn 50th Anniversary Menu, Summer 1997; n.a., T S Restaurants, Hawaii and California, copy possession of the author.
16. John Rember, "On Going Back to Sawtooth Valley," in William Studebaker and Rick Ardinger, eds., *Where the Morning Light's Still Blue: Personal Essays About Idaho* (Moscow, Id.: University of Idaho Press, 1994), 88; on the problems of the idea of au-

thenticity, see James Clifford, *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge: Harvard University Press, 1988), and James Clifford, *Routes: Travel and Translation in the Late Twentieth Century* (Cambridge: Harvard University Press, 1997).

17. William Cronon, *Nature's Metropolis: Chicago and the Great West, 1848-1900* (New York: W. W. Norton, 1991), xvii, 56-57.
18. *Ibid.*, 265-67.
19. Douglas C. Comer, *Ritual Ground: Bent's Old Fort, World Formation, and the Annexation of the Southwest* (Berkeley: University of California Press, 1996); Andrés R  sendez, "Caught Between Profit and Ritual" (Ph.D. diss., University of Chicago, 1997); many thanks to Tom Latousek for alerting me to the existence of this ritual; Palace Station commercial aired on Las Vegas local television, January-April, 1997.

Stevens, "Social Problem Novel as Tourist Guide," pp. 158-67.

1. Nathaniel Hawthorne, *The Marble Faun: Or, the Romance of Monte Beni. The Centenary Edition of the Works of Nathaniel Hawthorne*, Vol. IV (Columbus, Ohio, 1968), 3.
2. Valerie Sherer Mathes, *Helen Hunt Jackson and Her Indian Reform Legacy* (Austin, 1990), 39-75, 77.
3. George Wharton James, *Through Ramona's Country* (Boston, 1909), 349; Mathes, *Helen Hunt Jackson*, 81. Upton Sinclair's muckraking classic *The Jungle* is another example of a social problem novel in which the author's message went astray. Sinclair's purpose was to expose the evils of wage slavery and con-

vert his readers to socialism. Although the novel had a tremendous impact on public opinion, Sinclair never achieved his primary goal. Instead of accepting socialism as a solution to the nation's industrial problems, his readers, revolted by the graphic descriptions of unsanitary conditions in Chicago's meat-packing plants, called for stricter standards and more regulation of food production. "I aimed at the public's heart and by accident I hit it in the stomach," Sinclair later wrote. See Robert B. Downs's afterword to the 1960 edition of the book. Sinclair, *The Jungle* (New York, 1960), 349.

Charles Fletcher Lummis, "Comment on 'Ramona,'" in *San Gabriel Mission* (n.p., 1905), 3.

Helen Hunt Jackson, *Ramona* (New York, 1970), 40, 90, 217. I have used the Avon Books edition of Jackson's 1884 novel.

Edwards Roberts, "Ramona's Home: A Visit to the Camulos Ranch, and to Scenes Described by 'H.H.,'" in Jackson, *Ramona* (Boston, 1889), 1; James, *Through Ramona's Country*, 59; Kevin Starr, *Inventing the Dream: California through the Progressive Era* (New York, 1985), 60.

James, *Through Ramona's Country*, 156, 160, 161.

Carlyle Channing Davis and William A. Alderson, *The True Story of Ramona: Its Facts and Fictions, Inspiration and Purpose* (New York, 1914), 91; Elizabeth Baker Bohan, "Rancho Guajome: The Home of Ramona," *The Rural Californian* 27 (Nov. 1894): 588. Another writer, D. A. Hufford, also claimed to have found the authentic Ramona. This woman, one Ramona Machado, lived on the Pachanga reservation in San Diego County. Like James, he included a photograph of "his" Ramona in his book. See D. A. Hufford, *The Real Ramona of Helen Hunt Jackson's Famous Novel* (Los Angeles, 1900).

9. Jackson, *Ramona*, 36; James, *Through Ramona's Country*, 30, 59.

10. Hubert Howe Bancroft, *The Works of Hubert Howe Bancroft*, Vol. XIX, *History of California*, Vol. II, (San Francisco, 1886), 768.

11. Mathes, *Helen Hunt Jackson*, 45-46.

12. Davis and Alderson, *The True Story of Ramona*, 106-107.

13. Roberts, "Ramona's Home," 6; James, *Through Ramona's Country*, 94-95.

14. Bohan, "Rancho Guajome," 586.

15. Margaret V. Allen, *Ramona's Homeland* (Chula Vista, Calif., 1914) n.p.; Bohan, "Rancho Guajome" [Santa Fe reprint of 1894 article], n.p.

16. James, *Through Ramona's Country*, 97-98

Sandos, "Historic Preservation and Historic Facts," pp. 168-85.

1. Helen Hunt Jackson, Diary, January 22, 1882, Tutt Library, The Colorado College, Colorado Springs. I thank Ginny Kiefer, curator of special collections, for her assistance

2. Helen Hunt Jackson to Mr. and Mrs. Coronel, January 30, 1882, reprinted in Walter Lindley and J. P. Widney, *California of the South* (New York: D. Appleton and Company, 1885), 197-99. While the source is not given, it seems to have been the Coronels. The letter was reprinted again in Carlyle Channing Davis and William A. Alderson, *The True Story of "Ramona"* (New York: Dodge Publishing Company, 1914), 179-81, and Señora Coronel was acknowledged as permitting the authors to see the Coronel family correspondence with Jackson and to publish what they wanted. The letter is not, however, in the Coronel Papers at the Seaver Center for Western History Research, Natural History Museum of Los Angeles County, according to Collections Manager John Cahoon, 24 March 1997. It may no longer be extant or it may be in private hands, but there can be no doubt about its authenticity.

3. Helen Hunt Jackson to Abbot Kinney, February 4, 1882, cited in Wallace Smith, *This Land Was Ours: The Del Valles and Camulos*, Grant W. Heil, ed. (Ventura: Ventura County Historical Society, 1977), 177, 255, n293, gives the original of the letter at Camulos, but efforts to locate it thus far have been unsuccessful.

4. Edwards Roberts, "Ramona's Home: A Visit to the Camulos Ranch, and to Scenes Described by 'H.H.,'" *San Francisco Chronicle*, May 9, 1886, with a dateline of April 27, 1886, the latter date given in all reprints. Until *Ramona* appeared, Jackson had signed herself H.H. for Helen Hunt.

5. Helen Hunt Jackson, *Ramona: A Story* (Boston: Roberts Brothers, 1886), separately paginated following the text. The following year a Chicago publisher also accurately connected Camulos with Ramona. See American Photogravure Company, *Picturesque Los Angeles California: Illustrative and Descriptive* (Chicago: Frederick Weston Printing Co., 1887), 18. I thank Dr. Norman Neuerburg for sending me this citation.

6. Edwards Roberts, *Santa Barbara and Around There* (Boston: Roberts Brothers, 1886), 137-68. See, for example, the 1897 edition of *Ramona* by Roberts Brothers containing both the essay and the illustrations, and the 1926 edition by Little, Brown, and Company, which contains the essay but no illustrations. Art historian Norman Neuerburg, "Henry Chapman Ford: Painter of Early California," *Ventura County Historical Society Quarterly* 41:4 (1996): 26, argues that the stylistic differences of several of the sketches, while all unmistakably of Camulos, suggest that Ford drew only "The Old Bells." See also Neuerburg's *An Artist Records the California Missions: Henry Chapman Ford* (San Francisco: The Book Club of California, 1989), xxxi. Also, in 1886, J. C. Brewster of San Buenaventura took thirteen professional photographs of Camulos, mounted them on 8 1/2 x 5 1/4-inch cardboard, which he attached to copies of Roberts's newspaper article and distributed. Copies of Brewster's pho-

tographs sold for 50, 75 cent, and \$1.00 each. See Brewster, *California History*, 1880, Ventura County Historical Society, Ventura County Museum.

7. Charles Fletcher Lummis, *The Home of Ramona: Photographs of Camulos, Rancho Guajome, Spanish Estate Described by Mrs. Helen Hunt Jackson in the Home of Ramona* (Los Angeles: Charles F. Lummis & Company, 1884), unpaginated, but in the first two-page essay Lummis published a second, paperbound, edition of this book later the same year. Both may be consulted at the Huntington Library.

8. On the process and the problems of preserving their images see, The National Committee to Save America's Cultural Collections, *Caring for Your Collections* (New York: Harry N. Abrams, Inc., 1992), 69-71. See also Robert A. Weinstein and Larry Booth, *Collection, Use, and Care of Historical Photographs* (Nashville: American Association for State and Local History, 1977), 126-28, 174.

9. Don Antonio Coronel dancing with Pichona Abadie Harmer, South Porch, Camulos, 1897, Charles F. Lummis Collection, the Southwest Museum. Four photographs purportedly of Camulos, including three of Antonio Coronel dancing with young women there, were recently evaluated by Edna Kimbro; only no. 3436, of a young woman playing a guitar, is at Camulos, the other three show Coronel dancing at his home, El Recreo, in Los Angeles. See Pf 3434-3437, Huntington Library.

10. Jeanne C. Carr, "Recollections of Helen Hunt Jackson and the Genesis of the Novel *Ramona*," Jeanne C. Carr Papers, Huntington Library.

11. Adam Clark Vroman and Theodore F. Barnes, "The Genesis of the Story of *Ramona*," in Vroman and Barnes, eds., *Ramona with Explanatory Text and Thirty Illustrations from Original Photographs* (Los Angeles: Press of Kingsley-Barnes & Neuner Company, 1899), unpaginated, Huntington Library. In Helen Hunt Jackson, *Ramona: A Story* (Boston: Little, Brown, and Company, 1913), the essay appeared as the "Introduction," v-xviii, quotation on vii, with a single author, Vroman, given. The inclusion of twenty-four of Vroman's fine photographs, along with the essay, has caused this to become known as the Vroman Edition.

12. Vroman thought that the sheep sheds and the washing place at Guajome fit the descriptions in *Ramona* better than those at Camulos did, but he acknowledged that things may have looked different at the time of Jackson's visit, as compared to his own.

13. Helen Hunt Jackson, *Ramona: A Story*, Monterey Edition, 2 vols. (Boston: Little, Brown, and Company, 1900), Vol I, Ch. 2, 26. While the text does not change from the original edition of 1884, its arrangement varies with editions. I have chosen to cite the Monterey Edition as ME, followed by chapter number and page, to permit the reader to consult her/his own copy of *Ramona* while reading this essay; the chapter references should fa-

- cilitate locating text. My reasons for using ME are discussed in note 19 below.
14. *Ramona*, ME, I, Ch. 1, 10.
15. Cruz, one of the old servants at Camulos, PF 188, Charles C. Pierce Collection, Huntington Library.
16. *Ramona*, ME, I, Ch. 2, 26.
17. *Ramona*, Vroman Edition, xi.
18. *Ramona*, ME, I, Ch. 2, 26-27.
19. Helen Hunt Jackson, Diary, April 20, 1882, "Mr. Sandham arrived," Tutt Library; Henry Sandham, "Notes on *Ramona* Illustrations," in *Ramona*, ME, I, xxxi-xxxv. In 1905, the same publisher issued the Pasadena Edition of *Ramona* in one volume and included Sandham's essay, but reduced the number of his illustrations. Thus only the Monterey Edition contains the full complement of Sandham's illustrations, including two that show details of Camulos's architecturally distinct south porch discussed in the text, entitled "When he played he sat on the upper step," and "Felipe, do you think Alessandro is dead?" Furthermore, "Prayers, always prayers" was retitled "He watched her as she walked away" in the Pasadena Edition.
20. All illustrative materials are from *Ramona*, ME, I. A fourth illustration, "Margarita and Ramona," 129, I do not discuss because it shows a small portion of the south porch described in the discussion of the other illustrations.
21. Sandham, "Notes on *Ramona* Illustrations," *Ramona*, ME, I, xxii. The careful observer will have noted one exaggeration by Sandham: the balustrades, or short handrails, he sketched and that are visible in Vroman's photograph are not present in the 1886 sketch attributed to Ford or in Lummis's 1887 photograph. Sometime after Jackson's death, the Del Valles added the balustrades, and for Sandham they contributed to the romantic view of the porch and he included them in his final illustrations.
22. On the Guajome chapel, see Iris Wilson Engstrand and Thomas L. Scharf, "Rancho Guajome: A California Legacy Preserved," *The Journal of San Diego History* 20 (Winter 1974): photograph on p. 9.
23. On Ford, see above note 6. For examples of the postcards, see Frederick W. Nelson, comp., "California As It Was In the Old Days," Vol. 6, 1059, ca. 1908; Vol. 27, 101, ca. 1905, Scrapbook Collection, Huntington Library.
24. Charles Dudley Warren, "H. H. in Southern California," *The Critic* (May 14, 1887): 237-38; Opal Jackson, comp., "Clippings Relating to H. H. Jackson and Her Death," Scrapbook Collection, Huntington Library (hereinafter O. Jackson, "Clippings"); Ninetta Eames, "Autumn Days in Ventura," *The Overland Monthly*, 2nd ser., 14 (December 1889): 561-68; Eleanor F. Wiseman, "Hacienda de Ramona," *The Overland Monthly*, 2nd ser., 33 (January 1899): 112-21; Carlyle C. Davis, "'Ramona': The Ideal and the Real," *Out West* 16 (December 1903): 575-96; Juan Del Rio, "The California Classic," *The Land of Sunshine* 14 (January 1901): 4-10; Charles Francis Saunders, *Under the Sky in California* (New York: McBride, Nast & Co., 1913), 105; Rexford Newcomb, *The Old Mission Churches and Historic Houses of California: Their History, Architecture, Art and Lore* (Philadelphia: J. B. Lippincott Co., 1925), 344-52; Frances T. Barker, "Camulos, a Ranch of Romance," *Sunset Magazine* 55 (December 1925): 65-66; Myrtle Garrison, *Romance and History of California Ranches* (San Francisco: Harr Wagner Publishing Co., 1935), 106-107.
25. Valerie Sherer Mathes, *Helen Hunt Jackson and Her Indian Reform Legacy* (Austin: University of Texas Press, 1990), 81; Lawrence Clark Powell, "California Classics Reread: *Ramona*," *Sunset* 60 (July 1968): 13-15, 55. See also the *San Francisco Argonaut*, August 15, 1885, in O. Jackson, "Clippings."
26. Carey McWilliams, *Southern California Country, An Island Upon the Land* (New York: Duell, Sloane & Pearce, 1946), 73-75. Davis, "'Ramona': The Ideal and the Real," 576. A measure of the growth of *Ramona* can be seen in the increase in number of circulating copies of *Ramona* held by the Los Angeles Public Library from 29 in 1902, to 105 in 1914.
27. Roberts, *Santa Barbara and Around There*, 190.
28. Elizabeth Baker Bohan, *Rancho Guajome: The Real Home of Ramona* (n.p.: n.d. 1894), reprinted from *The Rural Californian* (November 1894): 1-8, Huntington Library.
29. Advertisement, "Rancho Guajome: The Real Home of Ramona," *The Rural Californian* 18 (January 1895): inside back cover. Two months after Bohan's essay first appeared in its pages, the journal editor began the advertisement with the phrase "As is well known the real home of Ramona . . . was the famous RANCHO GUAJOME, in San Diego County."
30. Jackson imagined a fully mature garden at Rancho Camulos that would not have been there when she visited. See Thomas Brown, "Mission Era Gardens and Landscapes," in Nicholas Magalouis, ed., *Early California Reflections* (San Juan Capistrano Branch of the Orange County [California] Public Library, 1987), 9-23. Photos by Lummis cited in note 7 show how it was in the 1880s, soon after Jackson's visit.
31. William B. Coutts, *San Luis Rey Mission and the Home of Ramona* [n.p., n.d.], emphasis added, attached to William B. Coutts to Charles F. Lummis, October 10, 1902, MS.1.1.925, Braun Research Library, Southwest Museum (henceforth Braun). Coutts's letter was written on the stationery of the Hotel Miramar, which contained a description of Oceanside and its environs designed to appeal to tourists, noting that "Guajome, the home of Ramona" was "eight miles [away] over good roads."
32. George Wharton James, *Through Ramona's Country* (Boston: Little, Brown, and Company, 1909), 105.
33. Vroman and Barnes, "The Genesis of the Story of *Ramona*"; Vroman, "Introduction," *Ramona*, Vroman Edition, ix.
34. Ruth Odell, *Helen Hunt Jackson*, H. H. (New York: D. Appleton-Century Company, 1939) 181.
35. Vroman and Barnes, "The Genesis of the Story of *Ramona*"; Vroman, "Introduction," *Ramona*, Vroman Edition, viii.
36. Final Report of the Warner's Ranch Indian Advisory Commission [August, 1902], 56 MS.1, Warner Ranch Series, Braun.
37. D. A. Hufford, *The Real Ramona of Helen Hunt Jackson's Famous Novel* (Los Angeles: D. A. Hufford and Company, 1900, 4th ed. 1916), 35, emphasis his. See also Mrs. Armitage S. C. Forbes, *California Missions and Landmarks and How to Get There* (Los Angeles: n. p., 1903), 22.
38. Margaret V. Allen, *Ramona's Homeland* (Chula Vista: Denrich Press, 1914), 28.
39. Anonymous, "C.L.S.C. Roundtable," *The Chautauquan* 31 (June 1900): 298-99.
40. Edwin H. Clough, "Ramona's Marriage Place," *The House of Estudillo* (Chula Vista: Denrich Press, 1910).
41. Iris H. W. Engstrand, *San Diego: California's Cornerstone* (Tulsa: Continental Heritage Press, 1980), 54-55; Alfred Kingsley Glover, "In Ramona's Footsteps," *Overland Monthly* 56 (October 1910): 406-10.
42. Sally Bullard Thornton, *Daring to Dream: The Life of Hazel Wood Waterman* (San Diego: San Diego Historical Society, 1987), 64-78.
43. Carl H. Heilbron, ed., *History of San Diego County* (San Diego: San Diego Press Club, 1936), 276-77; Clarence Alan McGrew, *City of San Diego and San Diego County: the Birthplace of California* (Chicago: The American Historical Society, 1922), I, 52-53; Max Miller, *Harbor of the Sun: The Story of the Port of San Diego* (New York: Doubleday, Doran and Company, 1940), 219-29.
44. Thomas P. Getz, *The Story of Ramona's Marriage Place, Old Town, San Diego, California* (San Diego: T. P. Getz, [1913]), 7.
45. Brown, "Mission Era Gardens and Landscapes," 9-21.
46. McWilliams, *Southern California Country*, 73.
47. Conversation with Dr. Thomas Tomlinson, Huntington Library, May 29, 1997. Tomlinson has been collecting postcards of southern California for twenty years, with an emphasis on images of health. I thank him for directing me to the Pasadena Postcard Show, where I had conversations with several dealers at Pasadena on June 5, 1997.
48. McWilliams, *Southern California Country*, 74.
49. Postcard collection of Dr. Thomas Tomlinson; Collection of Lee Brown, postcard dealer, in her business "Adventure in Postcards," Sunland, California.
50. Althea Warren, "The *Ramona* Tradition," *The Saturday Review* 26 (October 30, 1943): 15.
51. Office of Historic Preservation, *California Department of Parks and Recreation, California Historical Landmarks* (Sacramento: California Department of Parks and Recreation,

990), hereinafter *California Historical Landmarks*, National Trust for Historic Preservation, *National Register of Historic Places*, 1966-1994 (Washington, D.C.: The Preservation Press, 1994), 76, gives the date as April 15, 1970. Engstrand and Scharf, "Rancho Guajome, A Legacy Preserved," 11, Heilbron, *History of San Diego County*, 277.

5. United States Department of the Interior, National Park Service, National Survey of Historic Sites and Buildings, Name of Site Estudillo House (Casa de Estudillo, Ramona's Marriage Place), n.d. [final application date December 8, 1969]. I thank Edna Kimbro for a copy of this application and that for Guajome Ranchouse cited below. In *Cal-*

ifornia Historical Landmarks, 185, the Ramona's Marriage Place affiliation is disavowed.

53. United States Department of the Interior, National Park Service, National Register of Historic Places Inventory—Nomination Form, Name: Guajome Ranchouse, Item Number 8, Significance, n.d. [original 1967, certification reconfirmation January 23, 1979].

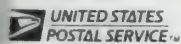
54. Iris H. W. Engstrand and Mary T. Ward, "Rancho Guajome: An Architectural Legacy Preserved," *Journal of San Diego History* 41 (Fall 1995): 250-83.

55. "Ramona Pageant Coming to Guajome Adobe Ranch House," County of San Diego, Department of Parks and Recreation, Janu-

ary 3, 1997. Program recorded from the Ramona Pageant and 19th and 20th Century California Play, Presented at the historic Rancho Guajome, March 23, 1997. (I thank Phil Bragdon, Ramona pageant director, for sending me copies of these materials. See also Linda Wegman-Penick, "The Cook, and Bill Bolger, 'The NPS Challenge Cost Share Program,'" *CAL Historical Resources Management* 20:9 (1997): 21-23.

56. Claudia Pearce, "Ramona at the Rancho," *On Air Magazine* (March 1997): 6-7.

57. *California Historical Landmarks*, ix, 287. Camulos is CHL no. 553.



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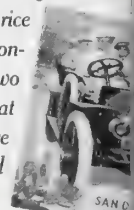
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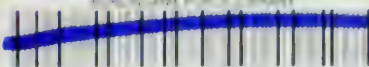
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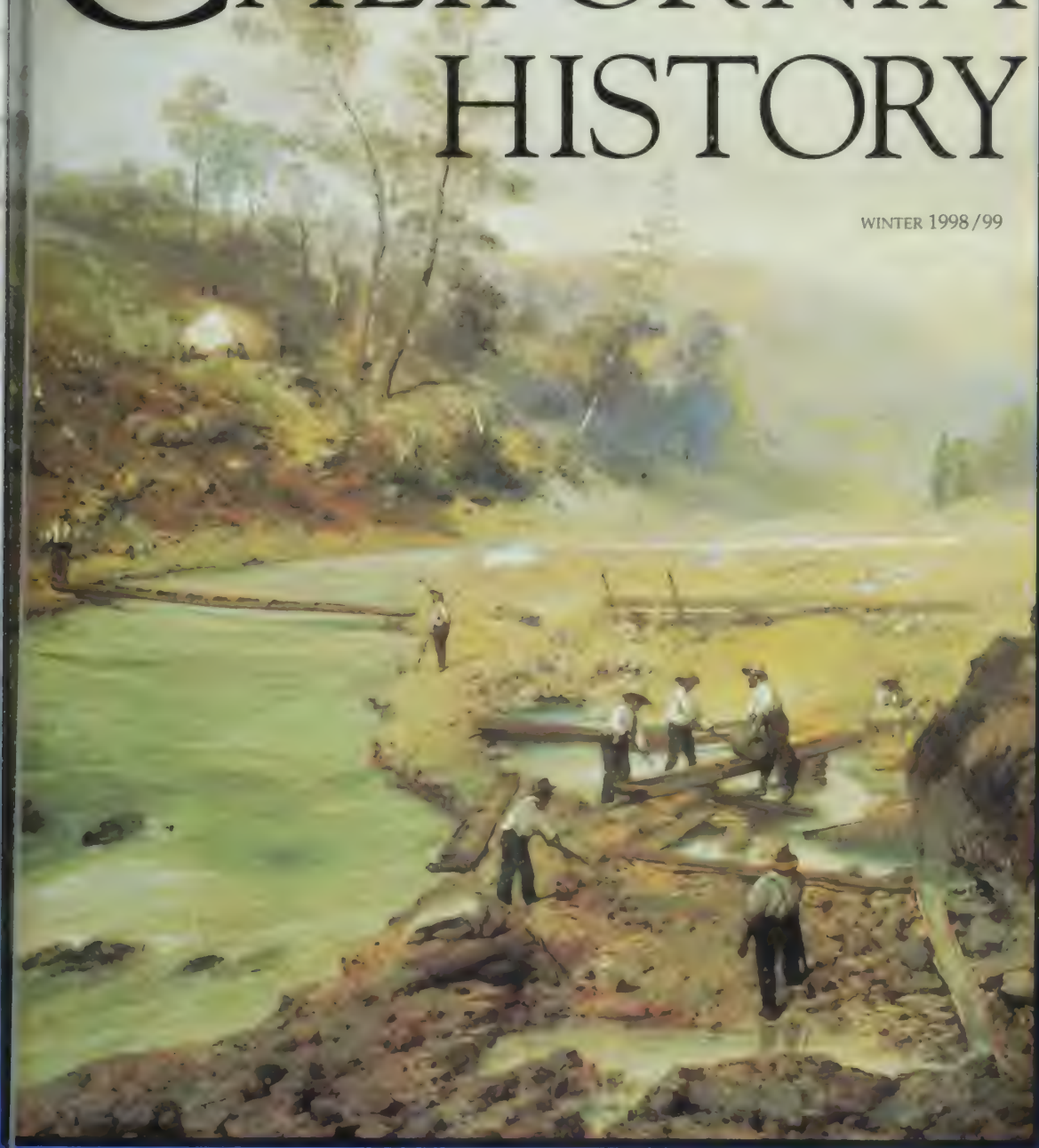
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WINTER 1998/99



A GOLDEN STATE: MINING AND ECONOMIC
DEVELOPMENT IN GOLD-RUSH CALIFORNIA

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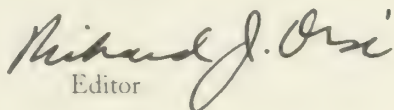
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VOLUME LXXVII NO. 4

Winter 1998/99

The Winter issue—of smaller dimensions and greater length—does *not* represent a radical redesign of the magazine, and with the Spring 1999 issue, we will return to our regular format. This special issue is the second volume of the California Historical Society's California History Sesquicentennial Series, a series of four annual volumes of essays by leading writers reinterpreting important themes of early California history. Each year through 2000, as one of the four issues of the quarterly, members of the Society will receive a volume in the series commemorating the state's 150th anniversary: *Contested Eden: California before the Gold Rush* (1997); *A Golden State: Mining and Economic Development in Gold Rush California* (1998); *Rooted in Barbarous Soil: People, Culture, and Community in Gold Rush California* (1999); and *Taming the Elephant: Politics, Government, and Law in Pioneer California* (2000). The Sesquicentennial issues will be published simultaneously as books by the University of California Press.

Cumulatively, these four matched volumes of the California History Sesquicentennial Series—books, not just journals—will collect the best judgment of fifty of the state's finest scholars on the meaning of early California history, particularly from the perspective of the present. They will be unique, valuable works for reading now and reference in the future. The authors, the editors, and the California Historical Society's officers offer these volumes as contributions to the state's commemoration and evaluation of its past. We hope the Society's members enjoy and learn from them.


Editor

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A Golden State

MINING AND ECONOMIC
DEVELOPMENT IN GOLD
RUSH CALIFORNIA

Editors

JAMES J. RAWLS and RICHARD J. ORSI

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On the cover: Unidentified artist, *Washing Gold at Calaveras River* (detail), 1853. Watercolor and gouache on paper, 16½ x 22 in. *M. & M. Karolik Collection, Courtesy Museum of Fine Arts, Boston.*

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Preface

In January 1848, in California, one of the most remote and primitive of all North American frontiers, James Marshall noticed a glimmer in the bottom of a millrace, and changed the history of the world. In the weeks, months, and years following Marshall's fateful gold discovery, "the world rushed in" on California. The early 1848 population of 10,000 persons, excluding Indians, swelled by hundreds of thousands within only a few years and by 1880 reached nearly one million people from across the globe. In the early years, most headed directly for the gold fields of interior foothills and mountains, where they started small placer mining operations as individuals and in small partnerships. Visions of golden fortunes had lured thousands of modern-day Argonauts to California, forsaking the company and comfort of loved ones and gambling what money they had in the high cost of passage and outfit. Dreams of riches were fulfilled for some in the early days of virgin diggings, but most miners discovered only short supplies, high prices, overcrowded river bottoms, body-breaking labor, elusive gold, and loneliness and longing for home. "Nearly every person . . .," Dame Shirley reported with her knack for seeing to the core of her world, "received the same step-mother's treatment from Dame Nature, in this her mountain workshop."

Most Argonauts returned home or voyaged on to new diggings out of state, but after the early 1850s, as the ore was rapidly depleted, those few who chose to stay founded mining companies, which grew ever larger and more complex, searching for gold with huge machines and forces of industrial laborers, new immigrants to the mines from Great Britain, Ireland, Mexico, China, and other far-off lands. Some former miners—successful and disappointed alike—remained in California and joined other newcomers in starting ranches, farms, stores, banks, factories, water companies, and steamboat and stagecoach lines. Within a decade or two of the Forty-niners' arrival, California boasted not only large quartz and hydraulic mines, but a host of

other enterprises even more productive, and the state had outgrown its gold-rush childhood. Although California remained in its adolescence, pioneers had transformed it into something other than just a mining state.

The Gold Rush that followed James Marshall's gold discovery is undoubtedly the most well known event in California history, particularly to people living elsewhere; indeed, it is one of the most famous events in the history of the United States and the world. It is also, of course, the impetus and the central organizing event for the state's Sesquicentennial from 1998 through 2000. But in all of the hoopla of popular and scholarly gold-rush history, and of the Sesquicentennial itself, generally ignored are the event's larger economic dimensions: how a mining-dominated society organized its people, productive systems, technologies, and laws to encourage unprecedented development; how individual and collective decisions in the pioneer period profoundly affected the future economic development of the state, even to the present; and how California's gold, people, machines, capital, and companies crossed the state's borders back into the West, the nation, and beyond. Indeed, after the world had "rushed in" on it, California "rushed out" to the rest of the world. Those are the subjects the authors of *A Golden State* explore—the development of corporate mining in the state; technological change of a most rapid and eclectic sort; the transformation of miners from entrepreneurs into industrial laborers; the emergence of ancillary businesses in transportation, finance, agriculture, and manufacturing; the exportation of the mining economy to Colorado and the Comstock Lode, and even to far-away Idaho, Montana, New Mexico, Dakota, British Columbia, and Australia; and the impact of California mining on the national and world economies.

This book is the second in the California History Sesquicentennial Series, presented by the California Historical Society—the state's officially designated historical society—and the University of California Press, with the support of California State University, Hayward, and many other partners. Four topical, but interrelated, volumes, one published in each year from 1997 through 2000, will re-examine the meaning, particularly from today's perspective, of the founding of modern California in the pre-1848 and gold-rush era experiences. Each of the volumes will collect essays by a dozen authors, drawn from the ranks of leading humanists, social scientists, and scientists, reviewing the best, most up-to-date thinking on major topics associated with the state's pioneer period through the 1870s. The authors have been asked to consider, within their area of expertise, the general themes that run through all four volumes: the interplay of traditional cultures and frontier innovation in the creation of a distinctive California society; the dynamic interaction of people and nature and the beginnings of massive environmental change; the impact of the California experience on the nation and the wider world; the shaping influence of pioneer patterns on modern California; and the importance and legacy of ethnic and cultural diversity as a major dimension of the state's history.

The four California History Sesquicentennial volumes will be published simultaneously as expanded issues of *California History*, the quarterly of the California Historical Society, and as books for general distribution. Each volume will be coedited by a consulting editor who is a leading scholar in the specific field and by Richard J. Orsi, Editor of the quarterly and Professor of History, California State University, Hayward. Volume 1, *Contested Eden: California before the Gold Rush*, coedited by Ramón A. Gutiérrez, Professor of Ethnic Studies and History at the University of California, San Diego, and published in 1997/98, dealt with the social, economic, cultural, political, and environmental patterns of Native American, Spanish, and Mexican California through 1848. The present volume, coedited by James J. Rawls, member of the history faculty at Diablo Valley College, examines the pioneer industry of gold mining, its inception and development, and its impact on the state, the West, and the national and world economies. Volume 3, to be coedited by Kevin Starr, State Librarian of California, will focus on the Gold Rush and the migration and settlement of peoples, cultures, organizations, and institutions. Volume 4, to be coedited by John Burns, former California State Archivist and State Historian and currently historical consultant with the California Department of Education, will investigate the inception of government and politics—statehood, early constitution-building, law, bureaucracy, and civil rights.

The California Historical Society's issuing of these major sesquicentennial publications is made possible through the contributions of all the Society's members, as well as a host of direct and indirect supporters. Chief among the helping agencies are the Mericos Foundation of South Pasadena, which has provided a generous grant specifically for the Sesquicentennial Series, the University of California Press, the California State Archives, and California State University, Hayward, which furnishes ongoing support for editing the quarterly.

Many individuals have also shared their time, knowledge, energy, and resources. The Historical Society's particular appreciation goes to Lynne Withey, associate director of the University of California Press, who has been an indispensable part of the project from the beginning; Kathleen MacDougall, project editor of this volume at the Press, whose understanding, precise editing, and care for the manuscript lightened our burden immeasurably; Mrs. Johan Blokker of the Mericos Foundation, whose belief in and support of the Sesquicentennial project has made it possible; Dr. Norma Rees, President, and Dr. Frank Martino, Vice President and Provost, of California State University, Hayward, who have provided generous assistance for the Sesquicentennial Series and the general editing office of *California History*; James J. Rawls, who but for his youth and vigor would long ago have been anointed the "dean" of California historians and whose partnership in editing this volume and many other services over two decades mark him as a true friend of the California Historical Society; Anthony Kirk, illustrations editor, who applied his unequaled

knowledge and appreciation of California iconography to discover, edit, caption, and interpret a stunning series of images, in many cases never before published; and Marlene Smith-Baranzini, associate editor of *California History* and true partner-editor in every facet of the Sesquicentennial Series. Other important contributors include graduate assistants Josh Paddison and Peter Orsi; Liz Ginno and Judith Faust, members of the library faculty at California State University, Hayward; and Larry Campbell, Patricia Keats, Katherine Holland, Emily Wolff, Bo Mompho, Scott Shields, Kathryn Kowalewski, Gail Miller, Jennifer Schaffner, Judith Deaton, and other members of the loyal, dedicated, and professional staff of the California Historical Society, San Francisco.

Finally, our thanks also go to all the individuals and institutions who made it possible to use images from their collections in this work or who provided other valuable assistance. Although space precludes listing all their names, special mention should be made of Dace Taube, curator of the California Historical Society/Title Insurance and Trust Photo Collection, Department of Special Collections, University of Southern California Library; Peter Blodgett and Jennifer Watts, the Huntington Library; Richard Ogar, William Roberts, Jack von Euw, Susan Snyder, and Walter Brem, the Bancroft Library; Ellen Harding and Gary Kurutz, the California State Library; Janice Driesbach and Laura Benites, the Crocker Art Museum; Carl Ryan-Grant, the Oakland Museum of California; Bill McMorris and Susan M. Haas, the Society of California Pioneers; Robert Chandler, Wells Fargo Bank History Department; Mary Haas, Fine Arts Museums of San Francisco; Alison Poulsen, the Autry Museum of Western Heritage; Claudia Jew, the Mariners' Museum, Newport News, Virginia; Darlene Dueck, the Anschutz Collection, Denver, Colorado; Joshua Ruff, the Museums at Stony Brook, New York; Annie Brose, the National Museum of American Art, Smithsonian Institution; Mary Sluskonis, Museum of Fine Arts, Boston; and Claudine Chalmers, Oscar and Trudy Lemer, Everett Lee Millard, and W. Bruce Lundberg.

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A Golden State

An Introduction

James J. Rawls

On January 24, 1848, a thirty-two-year-old Virginian named Henry William Bigler recorded in his diary one of the most fateful sentences in American history: "This day some kind of mettle was found in the tail race that looks like goald first discovered by James Martial, the Boss of the Mill." Thus was first recorded, in a scrawl barely legible, the momentous discovery of California gold by that eccentric master carpenter James Wilson Marshall working at Sutter's Mill on the South Fork of the American River. As news of the discovery spread across the country and around the world, California was transformed. Hundreds of thousands of Argonauts—a name derived from Jason's followers in search of the Golden Fleece of classical mythology—rushed to what would soon become the Golden State, hoping to find for themselves a fortune in that precious "mettle." Their coming was the foundational event not only for the economic history of California, but for much of its social, cultural, and political history as well.¹

For an event of such importance, it is striking that we know so little of the exact circumstances of the discovery itself. Marshall was never entirely sure of the date. He later speculated that he had made the discovery "on or about the 19th of January."² Several other accounts, including Bigler's diary entry, contradict Marshall. One dubious version, preserved by historian Hubert Howe Bancroft, takes the credit from Marshall altogether. It casts a Native American mill worker, one "Indian Jim," in the role of discoverer. According to this account, the Indian discovered a nugget "as large as a brass button" that he gave to a white worker, who in turn showed it to Marshall.³ Such discrepancies should not be surprising. As Rodman Paul reminds us, "the difficulty is that no one anticipated, few witnessed, and fewer still recorded the event. . . . The participants in the gold discovery were simple people who had little education and felt little incentive to keep written records."⁴



John Sutter's sawmill on the South Fork of the American River, where on a chilly January morning in 1848 James Marshall caught the glint of gold in the recently deepened tailrace and, stooping to gather the flakes—none larger than a grain of wheat—changed the course of history. The figure in the foreground of the daguerreotype, taken by Robert Vance about 1850, is thought to be Marshall. *California Historical Society, FN-30892.*

The background of the gold discovery stretches back through geologic time to the very creation of California. According to the theory of plate tectonics, the subduction of the Pacific Plate beneath the western edge of the North American Plate generated enormous heat. Within this molten crucible, metal-rich compounds dissolved into solutions that were injected into fissures of rocks being formed above. Different combinations of minerals precipitated to form deposits of various metals.⁵ Thousands of veins of gold thus were created in the granitic core of California's primordial mountains. Over eons, erosion tore loose tiny particles of gold and washed them into rivers and streams, where they lodged on sandbars or behind stones. There the particles lay undisturbed until that portentous day in January 1848.

The first people to live in California may well have known of the gold, but apparently they regarded it with little interest. Those who came later were gold-possessed. Spanish explorers and conquerors were drawn ever onward through the Americas by the lure of tales of magnificent wealth. Somewhere up ahead, they believed, were the fabled Seven Cities of Gold and El Dorado, "the Gilded Man," whose loyal subjects

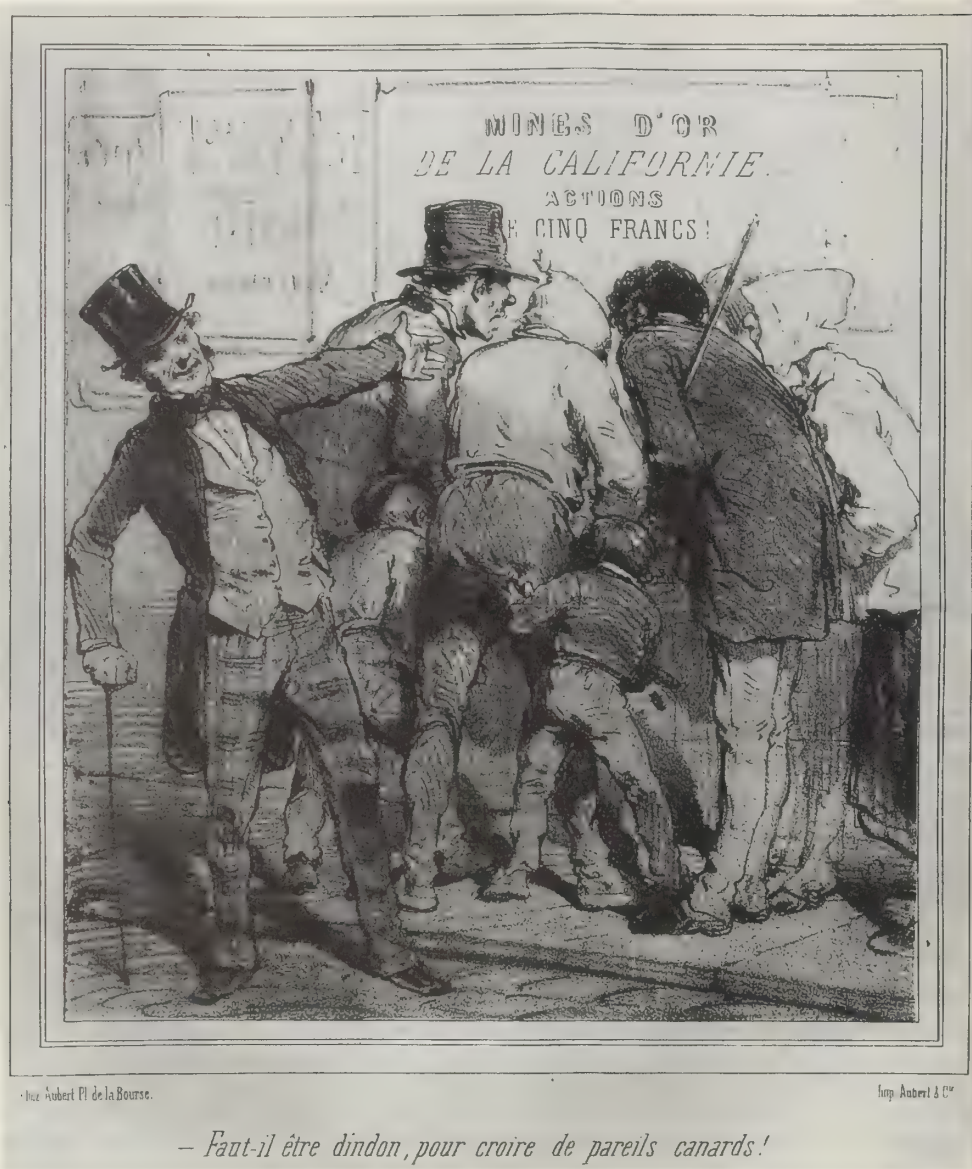
covered him with gold dust every morning and washed it off every night. Even the name "California" was identified with these golden dreams. Before Spaniards discovered this land, García Ordóñez de Montalvo's early sixteenth-century novel *Las Sergas de Esplandián* described a place that he called California, a mythical island "very near the Terrestrial Paradise" upon which the only metal to be found was gold. In the 1530s, Spaniards gave the name to the region along the coast north and west of Mexico.⁶

Gold in the Americas, of course, was no myth. Gold worth billions of pesos was taken from the mines of Spain's Latin American colonies. Great mining centers boomed at Potosí and Zacatecas, at Huancavélica and Pachuca.⁷ Gold was even discovered in Mexican California, in 1842 at Placerita Creek, about thirty-five miles northwest of the pueblo of Los Angeles. Although gold from the Placerita strike was the first ever sent from California to the U.S. mint, the deposits proved to be inconsequential and attracted little attention. In one of the great ironies in American history, Marshall's discovery came within days of the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848. Mexico thereby ceded sovereignty to about half its national territory, including gold-rich California, just as the value of that territory was poised to appreciate enormously.

Like ripples in a pond pulsing outward from a skipping stone, the news of Marshall's discovery circled the globe. Everywhere the reception of the news followed a similar pattern. At first, reasonable people responded with incredulity. Reports of nuggets as large as misshapen billiard balls and hens' eggs were dismissed as tall tales. How could there possibly be as much gold in California as such wild rumors suggested? Only as the rumors were confirmed by subsequent reports did reasonable people find themselves possessed by a gold mania. Their intense excitement was compounded by a determination to make up for the time they had lost in doubt.⁸

News of the discovery first appeared in March in San Francisco's two fledgling newspapers, the *Californian* and the *California Star*. But the reports failed to stir any immediate excitement. Monterey resident James H. Carson later recalled that during April and May a few local inhabitants left for the mines, but only after having "put the whole golden report down as 'dod drat' humbug." Carson remained an "unbeliever" until May 10, when he saw with his own eyes a sack of gold nuggets, some truly as large as hens' eggs. Then came the moment of Carson's conversion. "There was before me proof positive that I had held too long to the wrong side of the question." His description of what happened next is a classic account of the contagion that began raging out of control:

I looked on for a moment; a frenzy seized my soul; unbidden my legs performed some entirely new movements of Polka steps—I took several—houses were too small for me to stay in; I was soon in the street in search of necessary outfits; piles of gold rose up before me at every step; castles of marble, dazzling the eye with their rich appliances;

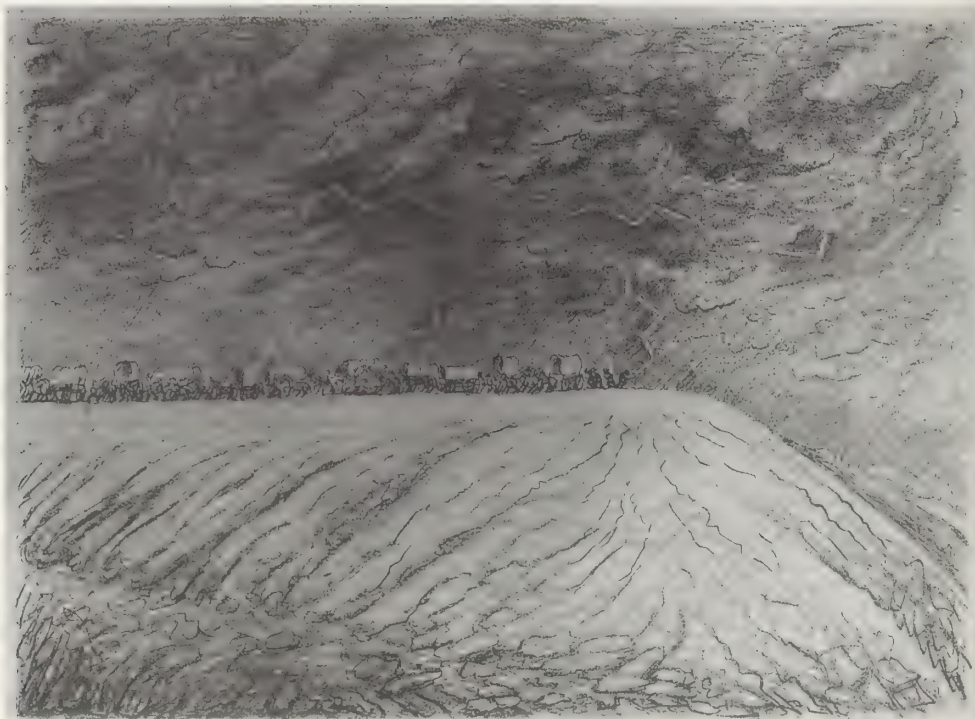


"You'd have to be turkey to believe such ducks!" runs the caption beneath a cartoon in the April 12, 1849 issue of the Parisian paper *Le Charivari*, making a lively play on the word *canards*—literally "ducks," but colloquially "a false report" or "hoax," especially as circulated by the press. Despite the well-intentioned skepticism of the artist, thousands of Frenchmen purchased stock in gold mining companies, at five francs a share or more, and countless others made the voyage themselves. In 1853 a San Francisco journal claimed that over thirty thousand Frenchmen resided in the Golden State. *California Historical Society*, FN-30966.

thousands of slaves, bowing to my beck and call; myriads of fair virgins contending with each other for my love, were among the fancies of my fevered imagination. The Rothschilds, Girards and Astors appeared to me but poor people; in short, I had a very violent attack of the Gold Fever.⁹

The promise of great wealth, obtained quickly and easily, had a universal appeal. Few could resist its allure. In a phrase made famous by historian J. S. Holliday, "the world rushed in," and California soon became home to the nation's most ethnically diverse population. Included among the gold diggers were Native Americans, working either as laborers for white miners or as independent agents. Colonel Richard B. Mason reported in August 1848 that of the four thousand miners then at work in the gold fields, more than half were Indians.¹⁰ Spanish-speaking Californios also joined the rush for gold, often taking with them Indian laborers from their ranchos. Historian Leonard Pitt has estimated that in 1848 about 1,300 Californios were actively looking for gold.¹¹ Thousands of other Latin Americans came north to the mines from Mexico, Peru, and Chile.¹² By 1850 the Mexican population in the Southern Mines—in Calaveras, Tuolumne, and Mariposa counties—was about 15,000.¹³ From the west came gold seekers from the Pacific Islands and Asia. Place-names such as Kanaka Creek in Sierra County and Trinity County's Kanaka Bar remind us also of the early presence of Hawaiians in the gold country.¹⁴ Australians settled in camps throughout the diggings and formed in San Francisco a loosely knit community known as "Sydney Town."¹⁵ Chinese sojourners, numbering 25,000 in 1852, represented a tenth of the state's non-Indian population; in some mining counties nearly one out of three residents was Chinese.¹⁶ Hundreds of thousands of other Argonauts came from Europe and from the eastern United States. Among these, by the late 1850s, had come 2,500 African Americans, including individuals enslaved and free.¹⁷ "Everybody, speaking all the languages of the world, it seemed, had come in search of gold."¹⁸

From whatever direction the Argonauts came, they faced enormous difficulties getting to California. Those from the eastern United States followed three main routes to the gold fields. Sea routes were the most popular at first. Sailing around Cape Horn was a voyage of 18,000 nautical miles and took five to eight months. Violent storms off the Cape posed a constant danger to even the most experienced mariners; the fierce gales, recalled one seaborne Argonaut, "produce long, huge swells, over which the ship mounts with a roll, then plunges into the abyss again as if never to rise."¹⁹ Sailing to Central America and crossing the Panamanian isthmus considerably reduced the travel time but exposed travelers to the risk of contracting malaria, yellow fever, and other tropical diseases. Ultimately most California-bound Argonauts traveled by various overland routes through the American heartland. This journey of 2,000 miles took at least three or four months and meant crossing incredibly difficult terrain.²⁰ Young Sallie Hester, traveling overland with her parents



Bolts of lightning split the dark, roiling clouds over the Great Plains in a drawing by J. Goldsborough Bruff, captain of the Washington City Company, which departed the Missouri frontier for El Dorado in late spring of 1849. Several miles past the Platte River a tremendous storm broke over the wagon train, with rain soon turning to hail as the temperature plummeted forty degrees. "Hail-stones of extraordinary size," wrote Bruff, "not only cut and bruised the men, whose faces and hands were bleeding, but [they] also cut the mules." *Courtesy Huntington Library, San Marino, Calif.*

in 1849, recorded in her diary the rigors of making it across the unbroken deserts of the Southwest: "The weary, weary tramp of men and beasts, worn out with heat and famished for water, will never be erased from my memory."²¹ The biggest killer on the overland trail was disease, responsible for nine out of every ten deaths. Cholera was by far the greatest scourge, but scurvy, typhoid fever, and dysentery also took their toll. Drownings while fording swollen rivers contributed to the mortality rate, as did fatal accidents caused by the careless or reckless use of firearms.²² Following the accidental death of a ten-year-old boy, Lucia Williams wrote to her mother that "for many days we could not forget this agonizing experience. It hung over us like a black shadow. It took all the joy out of our lives."²³

Arriving in California brought expressions of relief from those who survived the journey. Charles Glass Gray, a young Forty-niner from New Jersey, celebrated his arrival in San Francisco by sleeping in a bed for the first time in seven months. In his

diary he wrote that he was relieved to be off the trail at last, "for I have suffer'd enough already I think."²⁴

Was the trip worth it? Between 1848 and 1854, the peak year of production, the Argonauts harvested nearly \$350 million in gold from California.²⁵ The average daily take was \$20 per miner in 1848, at a time when skilled artisans in the eastern United States were earning a daily wage of \$1.50 for twelve hours of work.²⁶ But the cost of living in California was far higher than in the East. A loaf of bread that sold for five cents on the Atlantic seaboard cost fifty to seventy-five cents in California.²⁷ An entire dinner at a New York restaurant could be had for a quarter or a half-dollar in 1849; the bill of fare in a contemporary eatery in San Francisco listed a leg of mutton for \$1.25 and "Fresh California Eggs" at \$1.00 apiece.²⁸ More discouraging still was the shifting ratio between the number of gold seekers and the amount of gold being found. By the end of 1848 about 6,000 miners had obtained \$10 million worth of gold. Three years later the output was more than \$80 million, but the number of miners had swelled to 100,000.²⁹ Those who prospered in the Gold Rush—men like Levi Strauss, Domingo Ghirardelli, John Studebaker, and Philip Danforth Armour—were entrepreneurs who learned well the axiom that the main chance for success lay not in mining gold but in mining the miners.

One of the most acute observers of the Gold Rush was Louise Amelia Knapp Smith Clappe, author of *The Shirley Letters*, written along the Feather River in 1851 and 1852. "Gold mining is Nature's great lottery scheme," she wrote on April 10, 1852. "A man may work in a claim for many months, and be poorer at the end of the time than when he commenced; or he may 'take out' thousands in a few hours. It is a mere matter of chance. . . . And yet, I cannot help remarking, that almost all with whom we are acquainted seem to have lost."³⁰ Historian Oscar Lewis has estimated that fewer than one out of twenty California gold seekers returned home richer than when they left.³¹ The frustration of those who failed found expression in the names of their ramshackle mining camps, places like Poverty Hill, Skunk Gulch, and Hell's Delight.³² Among the many plaintive gold-rush ballads was "The Lousy Miner," first published in John A. Stone's *Original California Songster* (1855).³³ The opening stanza sets us straight:

It's four long years since I reached this land,
In search of gold among the rocks and sand;
And yet I'm poor when the truth is told,
I'm a lousy miner,
I'm a lousy miner in search of shining gold.

And the final refrain is one of bitter disappointment:

Oh, land of gold, you did me deceive,
And I intend in thee my bones to leave;



William Redmond Ryan, an English-born artist who mined for a spell in the autumn of '48, caught the labor of his fellow fortune hunters along the Stanislaus River in a drawing that appeared in his *Personal Adventures in Upper and Lower California*, in 1848–9, published in London in 1850. Rich though the diggings were, Ryan seldom washed more than four to six dollars a day, and, soon tiring of the hard labor and the “oppressive and injurious” dampness of the river canyon, he turned his back on the mines and took himself to Monterey. *California Historical Society, FN-30974.*

So farewell, home, now my friends grow cold,
I'm a lousy miner,
I'm a lousy miner in search of shining gold.

Frustrated ambitions were vented in an almost unending round of ethnic hostilities on the California mining frontier. Scapegoats were eagerly sought, identified with lightning speed, and dispatched with little regret. The antagonism between white miners and California Indians was especially intense. Whites advocated and carried out a program of genocide that they called “extermination,” and in the process thousands of California Indians were killed.³⁴ San Francisco’s *Alta California* reported in April 1849 that the white miners were “becoming impressed with the belief that it will be absolutely necessary to exterminate the savages before they can labor much longer in the mines with security.”³⁵ Three years later a miner in the

Auburn area reported that mining activity there had been suspended because of Indian hostilities. The miners organized several armed parties "determined to exterminate these merciless foes, or drive them far from us." After an attack on a nearby Southern Maidu village—in which thirty natives were killed outright and those wounded were knifed to death—the miners resumed their search for gold.³⁶

Foreign miners fell victim to xenophobic violence as well as to nativist legislation. Accounts of beatings, floggings, and lynchings of foreign miners appear as a bloody litany throughout the literature of the Gold Rush. Many of the mining codes, adopted in the more than five hundred California mining districts, barred Mexicans, Asians, or other immigrants from staking claims. The California legislature in 1850 enacted a foreign miners' license tax requiring miners who were not citizens of the United States to pay a fee of twenty dollars a month. The tax was aimed primarily at newcomers from Mexico, many of whom were experienced miners and skillful in locating good claims. Thomas Jefferson Green, the author of the tax, once boasted that he could "maintain a better stomach at the killing of a Mexican" than at the crushing of a body louse.³⁷ The tax, coupled with threats of violence, led to the exodus of ten thousand Mexican miners from California in the summer of 1850. Two years later the legislature adopted a new foreign miners' license tax, setting the fee at three and later four dollars a month. Subsequent legislation made ineligibility for citizenship the main definition of those to whom the tax applied, ensuring that it would be collected primarily from the Chinese (who were barred by race from becoming naturalized citizens). The tax remained in effect until 1870 and produced nearly a quarter of the state's annual revenue.³⁸

Historian Malcolm J. Rohrbough has captured the essence of these events in the simplest terms: "The California Gold Rush was about wealth."³⁹ It was the expectation of great wealth that drove hundreds of thousands of Argonauts rushing to the gold fields. Their presence led to an economic boom that transformed California in countless ways. The Gold Rush also produced a kind of mass hysteria in which greed predominated and ethnic conflict was all too frequent. Philosopher Josiah Royce, born in the gold-rush town of Grass Valley, recognized the power of the forces set loose: "All our brutal passions were here to have full sweep, and all our moral strength, all our courage, our patience, our docility, and our social skills were to contend with these our passions."⁴⁰

Popular understanding of the Gold Rush has evolved in remarkable ways over the past century and a half. The earliest accounts, of course, were the diaries and letters of the Argonauts themselves. Found here is a familiar trajectory of emotions as the miners pass from hopeful anticipation to the painful acceptance of the harsh realities of life in the diggings. Early published accounts of the Gold Rush often examined themes of myth and reality, expectation and disappointment. See, for example,



The Forty-niner Thomas Drew, one of the thousands of bold, confident young Americans who rushed west to reap the golden harvest when news of the wonderful discovery first swept across the land. *Courtesy Society of California Pioneers.*

William Shaw's *Golden Dreams and Waking Realities* (1851), George Payson's *Golden Dreams and Leaden Realities* (1853), and the acerbic Hinton Rowan Helper's *Land of Gold: Reality Versus Fiction* (1855).

Two indispensable guides to the abundance of published and unpublished first-hand accounts are Marlin L. Heckman, *Overland on the California Trail, 1846-1859:*

A Bibliography of Manuscript and Printed Travel Narratives (1984) and Gary F. Kutz, *The California Gold Rush: A Descriptive Bibliography* (1997). Among the best of these eyewitness narratives is J. S. Holliday's editing of William Swain's diary and letters, published as *The World Rushed In: The California Gold Rush Experience* (1981). Holliday set himself the task of consulting every available gold-rush diary and letter from 1849 and 1850 to provide the larger context; thus Swain's story is truly emblematic. Within six months of his arrival in California, Swain admitted that his expectations had not been fulfilled. He reported that 90 percent of the miners were downhearted and discouraged as "their bright day-dreams of golden wealth vanish like the dreams of night."⁴¹

Later memoirs and fictionalized accounts, appearing in the decades after the Gold Rush, tended to view the mining frontier through a romantic haze. Understandably, the aging Argonauts wished to put the best possible spin on their youthful exploits. Bret Harte and other local colorists produced nostalgic tales such as "The Luck of Roaring Camp" and "Tennessee's Partner," which conformed perfectly to the way the grizzled veterans of the Gold Rush preferred to remember those glorious "days of '49."⁴² Images of heroic pioneers, stouthearted and triumphant, invariably were in the ascendancy in popular celebrations of gold-rush anniversaries. In 1898 California's Golden Jubilee began on January 24 with a procession through the streets of San Francisco witnessed by a crowd of two hundred thousand. Henry William Bigler, then in his eighty-second year, was thrilled to be among those whom the crowd pressed forward to see.⁴³ The apotheosis was complete by 1948, when Californians observed the centennial of the gold discovery. Gordon Jenkins and his orchestra recorded a "musical narrative" that unabashedly celebrated the Gold Rush as a part of the national legendry.

There's gold in California,
Gold out California way.
Streets are paved with it,
Fortunes are made with it,
Even golden razors
So you can get shaved with it.

Contributing to the general acclaim was a steady stream of scholarly studies of the gold-rush experience. Among the earliest accounts written by an academically trained historian was Charles Howard Shinn's *Mining Camps: A Study in American Frontier Government* (1885). Shinn praised the democratic genius of the Argonauts who managed to fashion codes of law and to establish legal institutions in the wilds of the gold country. His sympathies were clearly with the European Americans; to him their meting out of justice was fair and praiseworthy. He elegized the miners' popular tribunals as "the folk-moot of the Sierra."⁴⁴ Most scholarly accounts over the



Painted in 1884 by the German American artist Oscar Kunath, *The Luck of Roaring Camp* portrays a poignant moment in Bret Harte's story of the same name. Pressing forward in single file, the rough, bearded miners of the district troop into the rude cabin of the recently deceased Cherokee Sal to gaze on her orphaned infant, Thomas Luck, neatly tucked into a candle box. In the years that had passed since Harte first mined the rich vein of local color and began publication of his popular tales, Americans across the country had increasingly come to regard the Gold Rush with nostalgia, seeing it as a romantic moment in the westward course of empire. *Courtesy Fine Arts Museums of San Francisco, Gift of Mrs. Annette Taussig in memory of her husband, Louis Taussig, 26562.*

next half-century continued to celebrate the Gold Rush and all that it seemed to represent. Only occasionally did a more critical perspective appear, such as Josiah Royce's often reprinted account of California history from 1846 to 1856. First published in 1886, Royce's book, subtitled *A Study of American Character*, saw in the Gold Rush intimations of "both the true nobility and true weakness of our national character." Royce excoriated Bret Harte for his "perverse romanticism" and unconscionable willingness to sentimentalize the miners' brutal habits. Turning an unflinching gaze upon the lynching of Mexicans and the wholesale murder of California Indians, Royce could only conclude: "All this tale is one of disgrace to our people."⁴⁵

The scholarly study of the Gold Rush took a great leap forward around the time of the centennial. Rodman W. Paul's *California Gold: The Beginning of Mining in the Far West* (1947) was the first serious attempt to analyze the Gold Rush as an economic enterprise. Paul emphasized the growing complexity of mining organizations and mining technology, and stressed the importance of the California experience for subsequent mining frontiers elsewhere in the nation and world. Like Royce, Paul sought to clear away the "thick haze of romantic legend and mythology [that] has settled over the California mining scene." He ended his account with a plea to understand the Gold Rush in multicultural terms: "In California at least a dozen nationalities and half that number of racial strains made major contributions to the progress of mining, and the great state which flourishes today upon America's western border stands as a lasting monument to the effectiveness of their joint efforts."⁴⁶ This same larger perspective informed the other major work of urbane scholarship that appeared at the time of the centennial, John Walton Caughey's *Gold Is the Cornerstone* (1948), a comprehensive overview of the economic, political, and cultural consequences of the gold discovery. Caughey acknowledged the environmental havoc wreaked by the miners, the appalling record of ethnic discord, and the failure of many Argonauts to strike it rich. "Nevertheless," he concluded, "there are tangible proofs that gold was the touchstone that set California in motion on the course that made her what she is today, and that her gold did things for the West at large and the Pacific basin that otherwise would not have been done for a generation or perhaps at all."⁴⁷

In recent decades scholars have brought to the study of the Gold Rush a host of new questions and new methods of analysis. Social historians, for example, have begun analyzing masses of data from manuscript censuses, tax lists, town directories, and probate records. From these data, historians have extracted information about the age, sex, ethnic origin, occupation, family size, and mobility of the residents of particular towns or communities. Ralph Mann, author of *After the Gold Rush: Society in Grass Valley and Nevada City, 1849-1870* (1982), brought the methods of the new social history to the study of two mining camps on the California frontier. Confirming many of the earliest anecdotal accounts, Mann concluded that the miners' prospects for instant wealth were quite dim. The heady days of placer mining may have seemed to represent a great chance for making a fortune, but it was only after industrialization had ended frontier conditions that most miners became solvent. Opportunities for upward mobility thus were less than imagined and perhaps even less than in the older, more established, more economically stable areas of the country.⁴⁸

Other historians have borrowed from literary criticism the technique of content analysis to produce systematic analyses of gold-rush diaries. John Mack Faragher, in *Women and Men on the Overland Trail* (1979), evaluated fifty diaries according to a set

of predetermined values to determine the importance of gender in the perception and reality of the westering experience. David Rich Lewis, author of a prize-winning 1985 essay in the *Western Historical Quarterly*, took a similar approach in analyzing forty-four diaries of young men on the trail to California. Lewis concluded that aggression and social conflict were parts of the "core experience" of the Argonauts. John Phillip Reid, in his studies of *Law for the Elephant: Property and Social Behavior on the Overland Trail* (1980) and *Policing the Elephant: Crime, Punishment, and Social Behavior on the Overland Trail* (1997), presented a more orderly portrait of the trail, emphasizing the remarkable persistence of law-abiding habits among those who were heading west.⁴⁹ Likewise Roger D. McGrath, author of *Gunfighters, Highwaymen and Vigilantes: Violence on the Frontier* (1984), found that criminal and lawless behavior affected only a few specialized groups.

The role of women in the Gold Rush has attracted a growing number of scholars in recent years.⁵⁰ The most comprehensive account is JoAnn Levy's *They Saw the Elephant: Women in the California Gold Rush* (1990). Levy portrayed women responding vigorously and positively to the challenges of life on the overland trail and in the mining camps. Especially valuable is her portrait of the "working women" of California who engaged in a wide variety of economic enterprises. Freed from the bonds of domesticity, gold-rush women enjoyed a greater freedom than they had known back home.⁵¹ Jacqueline Baker Barnhart, author of *The Fair but Frail: Prostitution in San Francisco, 1849-1900* (1986), reexamined one of the most common stereotypical roles of western women. She analyzed the prostitutes of San Francisco not as deviants or victims, but as a group of professional workers. She placed them within the tradition of gold-rush entrepreneurship, noting that most prostitutes came to California seeking economic opportunity and that many were willing to leave lucrative jobs working for others to open businesses of their own.⁵²

Much of the most recent scholarship on the Gold Rush has been by practitioners of the "New Western History." Emphasizing the importance of racial and ethnic minorities, the New Western historians have produced a considerable library of monographs and synthetic accounts. The multicultural aspects of the Gold Rush take center stage in such general histories of the West as Patricia Nelson Limerick's *Legacy of Conquest* (1987) and Richard White's "It's Your Misfortune and None of My Own" (1991). More focused on the California experience are Tomás Almaguer, *Racial Fault Lines: The Historical Origins of White Supremacy in California* (1994) and Lisbeth Haas, *Conquests and Historical Identities in California, 1769-1936* (1995). Typical of the approach of the New Western historians is Albert L. Hurtado's *Indian Survival on the California Frontier* (1988), a book that focuses not on the process of Indian decline but rather on the adaptation and resistance strategies that permitted a remnant of the native people to survive. For a convenient summary of the latest scholarship, see *Peo-*

ples of Color in the American West (1994), edited by Sucheng Chan, Douglas Henry Daniels, Mario T. Garcia, and Terry P. Wilson.

The present volume is a collection of essays that focus on the economic aspects of the Gold Rush. Each essay, written with the general reader in mind, offers an overview of a particular topic and provides some sense of the state of recent scholarship. The essays reflect the excitement of new work being done in the field, presenting new directions in interpretation, areas of inquiry, and methods of analysis.

The first essay, Ronald H. Limbaugh's study of gold-rush technology, demonstrates the diverse origins of the mining equipment and methods used by the Argonauts. From around the world, miners brought older technologies that they adapted and modified for use in California. Local hybrids emerged, as did innovations, most notably hydraulic mining and stamp milling, in a process that marked California mining as "a regional variant if not a separate species." Driving this dynamic process was the power of material ambition, "a common trait found in all Argonauts regardless of race, class, or national origin." So it is, according to Limbaugh, that the legacy of the Gold Rush lives on today "in the quest for riches in the form of good jobs, good living, personal fulfillment—the same things California Argonauts sought 150 years ago."

The San Francisco *Alta California* observed in the autumn of 1851 that "the miners are beginning to discover that they are engaged in a science and a profession, and not in a mere adventure."⁵³ This prescient observation could serve well as an epigraph for Maureen A. Jung's essay on the rise of corporate enterprise in the Gold Rush. As the Argonauts headed to California, they organized simple partnerships and joint-stock companies. But rapid technological advances in the 1850s—most notably the rise of river, quartz, and hydraulic mining—required far greater capital resources. To meet the growing need for capital, large-scale corporations soon became the dominant form of economic organization, and speculation in mining securities became a regional obsession. The mining corporations played a key role in the economic development of California and the West, but they also had their downside. "Corporate power," Jung reminds us, "won out over individual rights, as insiders manipulated share prices, bilked investors, and drained companies. These activities diverted funds from more productive investments, injured workers' livelihoods, and damaged the economy as a whole."

Daniel Cornford's essay on labor and capital, surveying the rise of corporate organization from the perspective of the miners, complements well the work of Maureen Jung. Cornford's approach reflects the interests of the new social historians, going far beyond the anecdotal testimony of individual miners to analyze basic questions of status and mobility. Acknowledging the pioneering work of Rodman



A mining company, which includes several Indians, pauses from its labors to pose for posterity, probably at Taylorsville, in present-day Plumas County, about 1850. Although the popular image of the Argonaut is often that of the solitary prospector, the economic imperatives of mining required gold seekers to labor together relatively early, either in voluntary associations or, increasingly, as employees of corporate entities. These miners have diverted a stream with a dam and begun their raid on the auriferous Tertiary gravels beneath the riverbed. *Courtesy Huntington Library, San Marino, Calif.*

Paul and the more recent contributions of Ralph Mann, Cornford concludes that upward mobility eluded most Argonauts. The lucky few struck it rich, but the earnings of the average miner "declined sharply from 1848 onward." It is in this context of declining fortunes that Cornford notes the diversity of the gold-rush population and the emergence of ethnic hostilities. He speculates on the origins of xenophobia and racism in the Gold Rush, citing instances of both legal and extra-legal discrimination against immigrant and nonwhite miners. In tracing the development of a labor movement in the California mines, a movement that did not emerge until the ascendancy of hardrock mining in the 1860s, Cornford gives special credit to the role

of Cornish immigrants. He concludes that the "proletarianization" of the California miners reflected the steady decline in their economic position and the consequent growth in social tensions between labor and capital.

Like several other essayists in this volume, Raymond F. Dasmann distances himself from the popular celebrations of "the days of '49" as he begins his account of the environmental changes wrought by the Gold Rush. He notes that the native flora and fauna of California already had been impacted severely by European settlement prior to 1848 and that environmental degradation would have continued even without a Gold Rush. Such was the story of California's grizzlies, sea otters, fur seals, tule elk, and pronghorn, as well as its forests and perennial native grasses. Yet the Gold Rush clearly had an "accelerating effect" on the activities that affected the environment. "It was the Gold Rush," Dasmann observes, "that set off the destructive, furious search for the yellow metal that later brought the moving of mountains and filling of valleys." The tortured landscape left behind stands today as "a monument to greed."

Restraining the passions of the Gold Rush is the topic of Donald J. Pisani's essay on mining and American resource law. His thesis is stated in the opening sentence: "The California Gold Rush profoundly influenced the evolution of property law in the American West." Paralleling Ronald Limbaugh's discussion of adaptive technology, Pisani acknowledges that mining codes did not originate in California but were introduced from many other mining frontiers. Nevertheless, out of the peculiar conditions of California came principles of law that later "became the foundation for mining on the public domain throughout the American West." As conflicts over water usage emerged between miners and farmers, further precedents were established that were adopted in other states. Pisani also notes that the speculative spirit of the miners influenced economic activities generally; the same "obsession with profit" characterized both California mining and agriculture. Raymond Dasmann's perspective on the environment here is reinforced, for Pisani concludes that the Gold Rush "strengthened the assumption that nature existed solely for profit." The legacy of California mining is a mixed one: it "produced great wealth, but it came at a high price."

Duane A. Smith's essay expands the range of California's contributions to the American West and beyond. In the spirit of Rodman Paul's early multiculturalism, Smith demonstrates not only the cosmopolitan origins of California's mining frontier but also its worldwide impact. In addition to technology and mining law, California exported capital, manpower, expertise, and a colorful panorama of mining legends and lore. The influence of California was first seen in Nevada, and later in Colorado, Idaho, Montana, and on mining frontiers around the world. Smith also reminds us that although exports like hydraulic mining devastated the landscape, they also gave rise to powerful counterforces of environmental awareness and protection. From the mining enthusiasms of California came a boisterous materialism and also a legacy of optimism—the notion that "over the next mountain, in the next canyon, would be El Dorado."

Anthony Kirk's interpretive chapter, "Seeing the Elephant," introduces a folio of evocative paintings and drawings of gold-rush scenes, most of them contemporaneous to the events themselves. Many of the images selected by Kirk portray the hardships endured by the Argonauts on their trek to California, as well as the hard times they encountered once in the land of their dreams. Kirk concludes that "few Argonauts gathered the golden harvest they set out so confidently to reap." The sense of excitement and drama present in many of these images is often alloyed with an undertone of bitter disappointment and painful regret.

The next four essays—by David J. St. Clair, Larry Schweikart and Lynne Pierson Doti, Lawrence James Jelinek, and A. C. W. Bethel—consider the impact of the Gold Rush on other contemporary economic activities in California. David St. Clair examines manufacturing and industry, raising the question of whether the Gold Rush had a positive or negative effect on the pace of their development. Historians long have disagreed on this vital issue. Maureen Jung argues that mining corporations were a catalyst for the growth of subsidiary industries, but the corporations also tended to divert funds from more productive uses. St. Clair comes down squarely on the side of those who see the Gold Rush as a stimulus to California industrialization. He demonstrates that California manufacturing grew rapidly during the gold-rush years for several reasons: the great boom in population led to an increased demand for consumer goods; industries linked to mining expanded to provide needed products and services; and the infrastructure developed for the mineral extraction industry was eminently transferable to other sectors. A spirit of innovation and flexibility thus was generated in the Gold Rush that became the hallmark of California's entrepreneurial dynamism. "Perhaps the greatest legacy of the Gold Rush," St. Clair concludes, "was not its ability to attract gold miners, but its ability to attract entrepreneurs who seized the opportunities that gold offered."

Larry Schweikart and Lynne Pierson Doti discuss the role of banking in the gold-rush economy. After surveying the regional financial landscape prior to 1848, they affirm that the gold discovery changed fundamentally the way Californians did business. Developing in a region where "hard money" was in abundant supply and at a time when antibanking sentiment was virulent, financial institutions in the Golden State had serious obstacles to overcome. Schweikart and Pierson Doti reveal how those obstacles were surmounted and explain the ways the Gold Rush informed the early economic development of the state. "Banking and the financial sector," they argue, "... evolved in often distinctive ways because of the gold-rush economy."

Lawrence James Jelinek reaches a similar conclusion in his essay on ranching and farming during the Gold Rush. The old Mexican ranchos boomed temporarily following the gold discovery and then entered a period of steep decline. Open-range grazing gave way to breeding and fattening ranches, and land ownership became



The banking house of James King of William, located on the corner of Montgomery and Commercial streets in San Francisco, 1854. Founded by the Georgetown, D.C., native who appended the "of William" to distinguish himself from others of that name, the bank was one of the earliest established in California. *Courtesy Wells Fargo Bank.*

concentrated in the hands of a few highly successful agrarian entrepreneurs. Cultivation of crops, on the other hand, was brought to a "near standstill" in the early years of the Gold Rush, as people and capital moved into mining, but later boomed to meet the needs of a rapidly expanding population. Wheat farming on a massive scale led to the rise of an itinerant and multiethnic agricultural work force, what Carey McWilliams called California's "peculiar institution." Viticulture and the development of orchards followed the wheat boom as California agriculture became more diversified. State support for farming developed with the realization that gold alone "could not permanently underwrite a healthy economy."

The Gold Rush was also a time of far-reaching developments in transportation, as A. C. W. Bethel demonstrates in his catalog of California conveyances. Bethel surveys the various modes of transportation that brought the Argonauts to California, as well as the evolution of intrastate pack trains, freight wagons, riverboats, stagecoaches, and railroads. The rapid growth of the gold-rush population and its distribution throughout the state's interior stimulated the development of California transportation. Bethel's findings support the conclusion of David St. Clair that the mining of gold produced an infrastructure, including an array of transportation options, that facilitated growth in other economic sectors.

The final essay summarizes the overall economic significance of the Gold Rush. Gerald D. Nash ties together the observations of all the other essayists, concurring that "the Gold Rush helped to trigger momentous economic changes. In the language of economists, it served as a multiplier—an event that accelerated a chain of interrelated consequences, all of which accelerated economic growth." Nash briefly notes the dimensions of that growth in manufacturing and industry, banking and finance, agriculture and transportation. He also emphasizes the worldwide ramifications of the Gold Rush, tracing its impact on the peoples and economies of Latin America, Europe, the Pacific, and Asia. Nash's conclusion is far-sweeping: "In many ways, the California Gold Rush precipitated a veritable economic revolution in the state, the nation, and the world. Production of precious metals affected price levels, labor, wages, capital investment, the expansion of business, finance, agriculture, service industries, and transportation." Yet there was more. Nash also reminds us of the psychological and philosophical dimensions of the Gold Rush, for surely this epoch-making event "touched a deep-seated nerve in the human psyche." Forces were unleashed, for good or for ill, that would transform California forever into a Golden State.

NOTES

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4. Rodman W. Paul, *The California Gold Discovery: Sources, Documents, Accounts, and Memoirs Relating to the Discovery of Gold at Sutter's Mill* (Georgetown, Calif.: Talisman Press, 1966), 18.
5. See John McPhee, *Assembling California* (New York: Farrar, Straus & Giroux, 1993).
6. An excerpt appears in Caughey, *California Heritage*, 49–50.
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9. Quoted in Caughey, *California Heritage*, 195.
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11. Leonard Pitt, *The Decline of the Californios: A Social History of the Spanish-Speaking Californians, 1846–1890* (Berkeley: University of California Press, 1970), 50.
12. See Edwin A. Beilharz and Carlos U. Lopez, *We Were 49ers! Chilean Accounts of the California Gold Rush* (Pasadena, Calif.: Ward Ritchie Press, 1976), and Jay Monaghan, *Chile, Peru, and the California Gold Rush of 1849* (Berkeley: University of California Press, 1973).
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15. See Jay Monaghan, *Australians and the Gold Rush: California and Down Under, 1849–1854* (Berkeley: University of California Press, 1966), and David Goodman, *Gold Seeking: Victoria and California in the 1850s* (Stanford: Stanford University Press, 1994).
16. Sucheng Chan, *Asian Californians* (San Francisco: Boyd & Fraser, 1991), 5–6, 27–28. See also Rodman W. Paul, *Mining Frontiers of the Far West, 1848–1880* (New York: Holt, Rinehart and Winston, 1963), 35.
17. Rawls and Bean, *California*, 141. See also Rudolph M. Lapp, *Blacks in Gold Rush California* (New Haven: Yale University Press, 1977).
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19. Quoted in Oscar Lewis, *Sea Routes to the Gold Fields: The Migration by Water to California in 1849–1852* (New York: Ballantine Books, 1971), 64.
20. David Morris Potter, ed., *Trail to California: The Overland Journal of Vincent Geiger and Wakeman Bryarly* (New Haven: Yale University Press, 1967), 231.
21. Quoted in JoAnn Levy, *They Saw the Elephant: Women in the California Gold Rush* (Norman: University of Oklahoma Press, 1992), 17.
22. Robert W. Carter, "'Sometimes When I Hear the Winds Sigh': Mortality on the Overland Trail," *California History* 74 (Summer 1995): 146, 152, 155.
23. Quoted in *ibid.*, 155.
24. Thomas D. Clark, ed., *Off at Sunrise: The Overland Journal of Charles Glass Gray* (San Marino, Calif.: Henry E. Huntington Library and Art Gallery, 1976), 154, 157.

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28. "Bill of Fare," 1849, Wells Fargo Bank History Room, San Francisco.
29. Rawls and Bean, *California*, 101.
30. Louise Amelia Knapp Smith Clappe, *The Shirley Letters: Being Letters Written in 1851–1852 from the California Mines* (Berkeley, Calif.: Heyday Books, 1998), 113.
31. Lewis, *Sea Routes to the Gold Fields*, 229.
32. Rolle, *California*, 225; Rawls and Bean, *California*, 103.
33. An 1868 edition of the *Songster* is in the California State Archives, Sacramento. See also Richard A. Dwyer and Richard E. Lingenfelter, eds., *The Songs of the Gold Rush* (Berkeley: University of California Press, 1964), 155.
34. Sherburne F. Cook, "The American Invasion, 1848–1870," in his *The Conflict Between the California Indian and White Civilization* (Berkeley: University of California Press, 1976), 5–13, 111. See also James J. Rawls, *Indians of California: The Changing Image* (Norman: University of Oklahoma Press, 1984), 171–202.
35. San Francisco *Alta California* (April 26, 1849), quoted in Rawls, *Indians of California*, 177.
36. Silas Weston, *Four Months in the Mines of California: Or, Life in the Mountains* (Providence, R.I.: Benjamin T. Albro, 1854), 8–10, quoted in Rawls, *Indians of California*, 178.
37. Quoted in Pitt, *Decline of the Californios*, 60.
38. Rawls and Bean, *California*, 130, 135–36.
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40. Josiah Royce, *California, from the Conquest in 1846 to the Second Vigilance Committee in San Francisco: A Study of American Character* (1886; reprint, New York: Knopf, 1948), 175.
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45. Quoted in Kevin Starr, *Americans and the California Dream, 1850–1915* (New York: Oxford University Press, 1973), 156, 162.
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51. Levy, *They Saw the Elephant*, 91-107.

52. Jacqueline Baker Barnhart, *The Fair but Frail: Prostitution in San Francisco, 1849-1900* (Reno: University of Nevada Press, 1986), 25-39. Similar conclusions appear in Marion S. Goldman, *Gold Diggers and Silver Miners: Prostitutes and Social Life on the Comstock Lode* (Ann Arbor: University of Michigan Press, 1981).

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2

Making Old Tools Work Better

*Pragmatic Adaptation and Innovation
in Gold-Rush Technology*

Ronald H. Limbaugh

As any American with a newly purchased computer can attest, rapid technological change is both inevitable and unpredictable in modern, urban-industrial societies. Patterns of rapid change seem inherently modernist and international at first glance, a twentieth-century by-product of economic competition, social upheavals, and the clash of arms around the globe. They also appear to be confined to the most economically advanced nations or regions, those having long passed the frontier or formative stage of development.

This brief study of the Gold Rush provides a broader historical view of technological change. It looks at changing patterns of technology in one region on the fringes of Euro-American industrial civilization, initially isolated but rapidly internationalized and altered in ways neither predictable nor invariably progressive. What it finds are similar forces at work, and similar consequences, whether in postmodernist California, 150 years beyond its Argonaut heritage, or in frontier California during the 1840s and 1850s. The legacy of the Gold Rush lives still in cities and industries that benefited from mining technology, and in the attitudes, lifestyles, and material culture of modern Californians.

While historians traditionally have emphasized the cultural roots of technological change, recent trends in historiography indicate how profoundly the "new" history has been influenced by related disciplines, especially the fields of historical archaeology and geography. Since the 1980s, historians of the American frontier are inclined to view technological change and innovation as a product not only of cultural eclecticism and pragmatic adaptation, but also of the region's material environment. Dianne Newell's study of the Canadian frontier in Ontario, for example, found that innovative technology "was typically cast on a small scale, tailored to local sources of fuel, built from cheap materials available locally—notably wood—and

easy to maintain."¹ Farther west, environmental differences help explain why mining and milling in northern Mexico and the American Southwest relied primarily on semi-arid technology, while northern California's relative abundance of water and timber produced a regionally distinctive technology widely copied but not widely successful outside its most optimal geographic boundaries.

Recognizing the importance of the physical setting as an influence on technological innovation, however, is not to endorse any theory of environmental determinism, a discredited idea among modern geographers as well as historians. Much closer to the mainstream scholarly view is Peter J. Hugill's cautious assertion that "environmental conditions influenced society's range of choices."² In California during the mid-nineteenth century, culture, pragmatism, and the regional environment combined to produce complex and dynamic patterns of change in mining technology.

AMERICAN MINING TECHNOLOGY AT MIDCENTURY

The Gold Rush came at an optimal time for American technological development. For the first time in history, the Western world at mid-nineteenth century united science and technology in a revolutionary merger that provided a powerful stimulus for material growth.³ The next fifty years saw a tremendous change in the mining industry as the industrial revolution spread worldwide, stimulating the demand for minerals, transportation, consumer goods, new sources of power, and capital.

These prospects for rapid technological change were not that apparent at mid-century, however. Before the late 1840s, traditional European mining technology and equipment prevailed.⁴ Spain had brought to Mexico in the sixteenth century a technology inherited from the Romans in antiquity and from the Germans in the Middle Ages.⁵ The global stock of metals was in short supply, with gold production nearly moribund, silver mining in decline, and only a few base metals available, mainly iron, copper, lead, and tin, which were controlled by Europeans, particularly the British.⁶ In the early decades of the nineteenth century, prospectors had located gold in Georgia and the Carolinas, copper in Michigan's Upper Peninsula, and lead and zinc along the Mississippi in Illinois, Wisconsin, and Missouri, but those strikes failed to attract much attention outside their immediate regions, and the technology for mineral extraction was crude even by midcentury European standards.

That was soon to change. Britain prepared the way in the 1830s by loosening its export barriers, making legal the exportation of machinery Americans had long been in the habit of smuggling into the States. By 1841 licenses from the British could be acquired for "nearly everything except spinning and weaving machinery."⁷ A few years later the Irish potato famine and the decline of tin mining in Cornwall had profound long-range repercussions on California mining. By midcentury, California was in position to benefit from British policy changes as well as from its domestic "distresses."⁸



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HOW THE CALIFORNIA MINES ARE WORKED.

An engraved letter sheet, after a drawing by the famed artist-Argonaut Charles Nahl, depicts the range of mining techniques practiced in the early years of the gold fever. In the foreground a miner washes a pan of sand and gravel, intent on catching a glint of "color," while his companions labor with a cradle, *left*, and a long tom. Behind them other miners tunnel into the earth or wash for gold with a line of sluices. *California Historical Society, FN-04130.*

CULTURAL STIMULUS TO TECHNOLOGICAL INNOVATION¹

Technology and culture go hand in hand, and California culture at mid-nineteenth century was predominately American, despite the cosmopolitan flavor of the mining camps after the great trek of 1849. Foreign immigration was large during the early statehood years, but historians have tended to exaggerate its size and impact. The foreign-born population never was in the majority. It peaked in 1860 at 39 percent, having climbed from 24 percent in 1850. By the 1870 census the foreign-born element had dropped to 37 percent, and it continued to decline thereafter.⁹

With a two-thirds majority and an ethnocentric chip on their shoulders, Americans at midcentury imposed on California the mainstream values of a highly materialistic, expansionist, overly optimistic society. From the streets of Boston, Philadelphia, and New York, and from the farms and river cities of the trans-Appalachian heartlands, they ventured forth with a robust spirit of individualism and self-worth, an aggressive nationalism, a self-righteous defense of their religious and moral beliefs, and an abiding faith in their own political and social institutions. Unlike the Australian gold rush, which came when Australia was still a colonial province with a pastoral elite in control and with no middle class, the California rush attracted

Americans who were experienced in developing and sustaining local government and social institutions.¹⁰

Caught up in the heady spirit of Manifest Destiny and Jacksonian egalitarianism, Americans in the late 1840s and early 1850s brought to the Far West an "emotional dynamism" that was both progressive and materialistic. Their material ambitions reflected a common trait found in all Argonauts regardless of race, class, or national origin. H. J. Habakkuk's remark about Europeans applies equally well to other gold seekers: those who left for California had a personal desire to improve by "ensuring, through hard work, that they did in fact better themselves."¹¹

The federal role in California mining was no less important than the power of democratic idealism. For a half-century prior to the Gold Rush, expansionists and visionaries had postulated a continental empire, a land of small farmers and individual entrepreneurs, aided and abetted by government but left for individual or corporate development without federal intervention or control. This Jacksonian image of democratic capitalism had an important ally in Christian morality and ideology. Historian John F. Kasson found a vital midcentury linkage between religious values and technological progress. When Lyman Beecher, Presbyterian theologian and father of Harriet Beecher Stowe, said Christianity was important "in safeguarding American technology," his message brought a provocative response from the nation's most prominent Unitarian orator, Edward Everett. He replied that "the converse was true. . . . Technology stood as the great benefactor of the public good, and he who impeded the progress of modern inventions threatened all."¹²

Even government could not stand in the way of progress by the thousands of "expectant capitalists" who ventured west in search of fortune. Unlike Canadian or Australian mineral rushes, where government made an effort, not always successfully, to regulate the use of public resources, gold seekers in California had a free hand, helping themselves to land, timber, water, and minerals, with government aiding and abetting the privatization at public expense. Before 1878, for instance, mining interests used thousands of acres of timber lands not legally open to settlement except under homestead and preemption laws. Even those restrictions were ignored by early sawmill owners and miners, who openly cut any timber they wanted on federal lands.¹³

GOLD-RUSH TECHNOLOGY AND AMERICAN PRAGMATISM

The massive scale and diffusion of placer deposits in the Sierra foothills gave California a distinctive advantage in nineteenth-century America's race for riches. No other region in North America offered such golden opportunities for so many ordinary people, people without specialized knowledge or skills. The California Gold Rush was both first and biggest in sheer numbers of people involved. It was also the

most important, for it accelerated the pace of American urban-industrial development and continental conquest.¹⁴

American gold seekers carried west a technology based on practical application and experience. Engineering as a profession was still in infancy at mid-nineteenth century; those who called themselves engineers were usually pragmatic, seat-of-the-pants technicians and mechanics with little formal education. They stood in sharp contrast to engineers from Europe, especially continental Europe, which had an engineering legacy grounded in theoretical science and mathematics.¹⁵ Lofty in their traditions and training, some European scientists derided American practical engineering, arguing that the "Yankees" were "blundering along" in gold and silver metallurgy and would continue to do so until they studied at European schools like Freiburg in Germany or the London School of Mines. Some Americans agreed. J. Ross Browne, a Californian and the nation's first commissioner of mining statistics, considered the lack of trained American mining engineers a national disgrace: "Our mines and mills are practically managed by foreign experts; we furnish the labor and mechanical ingenuity, but they furnish the scientific skill."¹⁶ His successor, Rossiter Raymond, took a more balanced view, noting wryly that many Americans puffed the superiority of American methods over the rest of the world. "The truth lies between these extremes," he concluded. Both he and Browne called for a national school of engineering, but Congress responded instead with the land-grant college act, leaving the job of training technicians up to the states.¹⁷

Whatever the need, it was practical miners in the gold-rush era who responded to technological challenges by adapting existing machines and methods to local conditions. Before 1851 the massive scale of surface placer deposits gave practically anyone a chance to mine without the necessity of elaborate equipment or experience. Only after depleting the high-grade shallow gravels did California mining begin to develop more sophisticated technologies. But even then the change was more innovative than revolutionary. As Browne said in 1868, "with all the genius and enterprise of the American people, no important discovery in the way of machinery for mining was made which had not been long in use in South America, Mexico, or Europe."¹⁸ The Washoe pan process, for instance—the first practical method for reducing Comstock silver ores—was an American hybrid, a modification of milling processes used for centuries in Mexico and Germany.¹⁹ By the late 1860s the hallmarks of American mining technology were ingenuity and innovation, rather than originality and invention. Even former scoffers were impressed. Rossiter Raymond's 1869 *Report* noted with pride that European metallurgists were now coming to the United States to learn from Americans, rather than the other way around.²⁰

Technological innovation in gold-rush California, however, was not distinctively American. The notion that Yankees were more ingenious than people from other lands is an ethnocentric stereotype born out of the excessive nationalism of the

nineteenth century. In truth, adapting common tools and methods to local conditions was standard procedure in frontier communities regardless of ethnic or cultural differences. In Canada, for example, frontier Ontario fashioned new techniques from old "whenever it was practical to do so."²¹

In California, those who were actively engaged in seeking gold used whatever tools and methods were at hand, regardless of origin. To excavate and wash bedrock gravels, the first miners along the American River used ordinary picks and shovels, household butcher knives, tightly woven baskets made by native Americans, and frying pans. By the summer of 1848 Georgians, Hispanic Californians, and perhaps transplanted Europeans with placer experience, had introduced sheet-iron pans and wooden *bateas* (bowls), wooden rockers (cradles) and riffle boxes, and dry-washing and winnowing techniques with blankets and hides.²² A Georgian "was said to have introduced the sluice box on Laird's Hill about April 1850," but this claim is disputed by evidence that it was in use earlier.²³ The sluice was actually an ancient device, used as early as Roman times, although California miners may have reinvented it without being aware of its antecedents.²⁴ Like its cousins the long tom and the rocker, it employed the power of gravity to concentrate heavier eroded gold from lighter sands and gravels. When mercury ("quicksilver") was available and cheap enough for low-budget operators, miners added it to sluice boxes to "amalgamate" finer gold particles, flour gold, or "dust" that tended to wash away. Amalgamation was another ancient process brought to Mexico by Spaniards in the sixteenth century and to California by both Mexican and Georgian miners.²⁵ Mercury-coated riffle bars in the bottoms of sluice boxes "captured" gold if it was bright and clean and "free-milling," or not locked up in sulfide compounds or tellurides. "Clean-up" was a simple matter of scraping up the amalgam and heating it on a shovel in an open fire at first, or later in a retort, until the mercury vaporized, leaving behind the "sponge" of gold, which could then be melted and poured into bars for delivery to the mint.

In the Southern Mines, those south of the Mokelumne River, where the influence of Hispanic immigrant miners was stronger, the Spanish *batea*—a wooden bowl hollowed out of a single block—was at first widely used in the placer diggings, but it soon gave way to the flat-bottomed iron pan preferred by Americans.²⁶ More influential was dry-washing, or winnowing, a method used extensively by Mexicans in the Southern Mines, where, prior to the organization of water companies, water was scarce in summer and fall. A French traveler in 1848 watched Sonorans between the American and Cosumnes rivers using this technique to extract six or seven ounces of gold per day from dusty gravels.²⁷ Experienced Mexican placer and hardrock (quartz) miners made other important contributions to California technology until they were chased out after 1850 by jingoistic Americans using both legal and de facto forms of discrimination.²⁸

Chinese miners demonstrated considerable ingenuity in adapting and altering



Placer miners pose with the tools of their trade, gold pans and rockers, in what are possibly dry diggings, to judge by the buckets carried by one of the Argonauts. The rocker, or cradle, first appeared in California in the summer of 1848, employed at Coloma by miners from Georgia, who had long experience with its use in their native state. More efficient than the pan, it usually required the combined labor of two or three men—one to shovel and dig, one to load the hopper with sand and gravel, one to ladle the water and rock the cradle. *Courtesy Bancroft Library.*

European and American placer techniques. They were particularly adept with the pan and rocker, continuing to rely on these portable tools long after they were abandoned by others.²⁹ The image of the Chinese and his rocker became so pervasive in the mining West that some Americans thought the machine was a Chinese invention, even though Isaac Humphreys, a Georgia miner, took credit for introducing it in California. It was used extensively at Mormon's Bar near Coloma and in the ravines and gulches along the American River before the Chinese arrived.³⁰ But Chinese quickly made the rocker their own. By the 1850s, Chinese models were being manufactured in China and exported back to the United States for sale to new arrivals from the Celestial Kingdom.³¹ Historical archaeologists in recent years, after examining numerous Chinese mining sites in the West, have concluded that even as Chinese miners retained cultural identities through an international trade network that supplied them with traditional Chinese commodities, they were re-

ceptive to technological innovation. Thus, as Michael Ostrogorsky puts it, "ethnicity became secondary to technology in determining frontier lifeways, rather than the reverse."³²

One ancient device distinctively Asian in design, however, saw widespread application and adaptation in the placer camps. This was the Chinese chain pump, a continuous belt of water-lifting pallets, initially foot-powered, that could be used to de-water flooded claims and boggy ground adjacent to a river or stream, or to divert water from a low-lying stream to a nearby sluice or riffle box. Used extensively in river mining, it was widely adapted and quickly altered, growing both in size and capacity, the Asian ancestor of the bucket-line dredge.³³

Starting with simple, universal designs, practical miners fashioned and re-fashioned mechanisms suitable for specialized needs and adapted to regional conditions. Whenever possible they converted hand- or foot-power to water-power or steam, the most available forms of cheap energy in California before the 1890s. At Mokelumne Hill, for example, William Highly in 1860 built a homemade pump for lifting water thirty feet above a flume, using two water wheels, each twenty feet in diameter, placed so that the same water turned both wheels.³⁴ Other practical engineers erected "flutter wheels," sometimes forty feet in diameter, that lifted water in buckets or barrels attached to paddle wheels rotating in the stream's flow.³⁵

By the early 1870s, high-pressure water wheels of the California-built Pelton and Knight designs were beginning to revolutionize the power-generating needs of the industry. In districts where water was abundant, Pelton-type wheels were cheaper than steam engines and much more efficient for powering air compressors, pumps, and line shafts. Some innovators even experimented using these "hurdy-gurdy" wheels to power machine drills underground.³⁶

THE LEGACY OF CALIFORNIA'S GOLD-RUSH TECHNOLOGY

Granted the accelerated pace of development in the West following the international rush of 1849, what were the long-range consequences for California mining technology? John Hittell, California's first regional historian, admitted that western miners were eclectic rather than original. Even so, he continued, their lack of originality "does not deprive the miners of the Sacramento basin of their right to high credit; for although the general principles might have been elsewhere applied at an earlier time, it was here that the inventions were brought to their highest state of efficiency, that they were universally adopted, and that they were adapted to the peculiar circumstances of every locality."³⁷

Writing in 1861 about the state's brief mining history, Hittell had the advantage of both his personal observation and a ten-year perspective. By that date California had moved beyond the egalitarian era. Mining was no longer dominated by indi-

vidual entrepreneurs or small partnerships in search of high-grade shallow placers. By the late 1850s a new era of industrial mining had dawned, an era characterized by corporate organization and consolidation, substantial capital investment, increased professionalization of management and engineering, hired miners working for wages instead of partners working for profits, and new technologies designed to mine lower-grade massive deposits.

Generally, these industrial conditions applied only to the major mines, whether placer or hardrock. On a different scale entirely were the smaller producers, the true heirs of the Gold Rush. Most mines were still in the hands of small-time operators or companies, the "mom and pop" units in the industry. Working with less capital investment, fewer men, smaller properties, and often with antiquated methods and equipment, their numbers were large but the volume of their production modest in comparison to the major producers. Technology made slow progress in these smaller mines for a variety of reasons, some of which had to do with the high cost of change, but mostly because the focus was on high-grade ore extraction, rather than operations that required modernized mass-mining techniques. Dianne Newell's analysis of conditions in frontier Ontario might equally apply to frontier California: in both places high-grade ores, usually close to the surface, were profitable to work without employing expensive new equipment or new technologies.³⁸ Even after the mines deepened and lower-grade deposits opened, some operators remained in business as long as they could, hoping for another bonanza and financing operations with production revenue when possible, or with "Irish dividends"—stock assessments—when not. Often the mine ended in failure and foreclosure, only to start up, again with a new source of ore and a new cycle of intermittent production and decline. Though such operations dotted California throughout its mining history, they generally remained economically insignificant and technologically limited.

California miners may not have been the heroic architects of western technology that John Hittell described in 1861, yet his praise is not wholly unwarranted. By that time, two components of the industry, hydraulic mining and stamp milling, had been indelibly marked with regional distinction.

HYDRAULIC MINING: A CALIFORNIA ORIGINAL

Because of "our peculiar circumstances and conditions," wrote Rossiter Raymond in 1869, the United States has "developed some distinctively American processes." One was hydraulic mining, "native and peculiar to this country," a technology distinctly Californian in design and application.³⁹ Historians have quibbled about whether it was really "new" or merely another example of adaptive innovation,⁴⁰ and have even disputed the place of origin and the originators.⁴¹ The details of its genesis should not obscure the larger significance of its contribution to mining. It was truly a

"breakthrough technology,"⁴² a revolutionary process using the destructive power of high-pressure water to exploit thick, deeply buried placer deposits at the lowest possible cost. It proved the effectiveness and profitability of working lower-grade ores with mass-mining techniques.

The need for new placer technology became apparent as early as 1850. Cornish miners in Nevada County, following gravel leads that indicated the presence of deep gravels laid down by ancient river channels, sank short vertical shafts to bedrock, then drifted along the channel to locate the "pay streak." Pocket mining, or "coyot-ing," a common practice among prospectors and small operators in the early 1850s, expanded into drift mining or "tunneling," designed to exploit the richer gravels deposited in a complex series of Tertiary streambeds, buried fifty to two hundred feet or more below the surface.⁴³

Drift mining was both dangerous and expensive, requiring more experience and skill than surface placering as well as a greater outlay of capital for underground development and timbering. It was also inefficient, requiring miners to remove tons of barren rock and gravel before reaching pay dirt.⁴⁴ In hilly localities, where there was abundant water and adequate drainage, some companies resorted to "ground sluicing." This was an inexpensive way to strip off shallow "overburden," or barren material above bedrock, simply by washing it away with a large volume of swift-running water and allowing the cracks and crevices in the rocky underlay to serve as natural riffle bars for capturing loose gold. Most of the finer particles washed away with the barren sands, but enough gold was caught by this means to make ground sluicing a popular and cheap method of moving massive amounts of material. Philip R. May characterized it as the "essential preliminary technique" to hydraulic mining, since it demonstrated both the earth-moving potential and the economic feasibility of mass-mining by hydraulic action.⁴⁵ All that remained was to devise means and methods to increase the velocity and cutting-power, and control the direction of the stream flow.

Hydraulic technology advanced incrementally and differentially, with local inventors working independently to design and patent components. Edward E. Matteson is credited with devising the first successful nozzle. A Rhode Island native and Forty-niner, he added a three-quarter-inch nozzle made of sheet brass to a rawhide hose attached to a barrel set on a stump thirty feet above him, using it for the first time in March 1853 to undercut a steep, high bank that he had been ground sluicing with a stream of water.⁴⁶

Matteson's homemade device was a great success, but as Randall Rohe points out, hydraulic technology could not keep up with demand. Canvas replaced rawhide by 1853, but it was expensive, prone to rot, and unable to withstand the increased pressures demanded by hydraulic operators. Iron pipe eventually replaced not only the hydraulic hose but most of the wooden flumes that had mushroomed in the



A half-dozen miners combine their labor in ground sluicing, turning a stream of water to wash over a bank of earth and assist them in cutting down to the pay dirt of the gold-laden gravels resting on the bedrock below. Used extensively beginning in 1851, the technique was a precursor to hydraulic mining. *Courtesy Huntington Library, San Marino, Calif.*

1850s, as hydraulic water companies devised elaborate and expensive delivery systems to supply the mines. Nozzles were fitted to iron “monitors,” which also expanded in size, capacity, and maneuverability. Gooseneck swivels and knuckle joints provided both horizontal and vertical movement of these powerful water cannon, rock-filled boxes counterbalanced the water velocity and volume, and solid tripods and pivots added stability and support. By the 1870s, hydraulic monitors, or “giants,” came in a variety of shapes and sizes, some weighing a ton or more. Most were designed and built by local technicians in machine shops and foundries both in San Francisco and in regional mining and supply towns.⁴⁷

Aside from the systems for water delivery and discharge for washing down the banks, hydraulicking was a relatively simple and ancient technology that relied on traditional gravity methods. Except for the largest boulders, all the material washed down by hydraulic operators passed through long strings of sluice boxes on its way downstream, leaving huge pits behind and tons of debris clogging the streams and rivers below. Like their shallow-placer-mining colleagues, hydraulic miners relied on amalgamation for recovery of values. Clean up and retorting recovered most of the mercury, but invariably a small percentage escaped, leaving a troubling legacy of pollution for later generations. More immediate was the devastation imposed on



A slender stream of water plays against a high bank at Michigan Bluff, Placer County, in a daguerreotype made in the spring of 1854, one of the earliest known photographs of hydraulic mining. It was from such simple and innocent beginnings that the giant cast-iron monitors of the 1870s evolved. These water cannons, with bores of six to ten inches, could throw a powerful jet of water several hundred feet and tear away whole hillsides in an afternoon. *Courtesy Wells Fargo Bank.*

farmers and merchants and families in the Central Valley by the periodic floods that washed millions of tons of hydraulic debris downstream, filling in riverbeds and smothering farms and towns. After a decade of lawsuits, the federal courts in 1884 dealt a near-fatal blow to this branch of the industry in California by requiring that miners impound all hydraulic tailings.

For nearly three decades, hydraulic mining dominated northern California as had no other form of mineral extraction. But as historian Robert Kelley put it, in the confrontation wrought by two clashing technologies, mining and agriculture, Californians chose "grain" over "gold."⁴⁸ Yet hydraulicking was the first effective technique for mass-mining of lower-grade deposits, and as such it set important precedents for the industry. It also stimulated the development of significant ancillary industries in California, particularly systems for impounding and diverting water,

both for irrigation and urban use. The legacy of hydraulic mining lives on today in California, a state still embodying, as some have contended, the characteristics of a "hydraulic society."⁴⁹

DEVELOPMENTS IN CALIFORNIA HARDROCK TECHNOLOGY

A later but still vital technological component of the California Gold Rush was hardrock, or lode, mining. It began in 1849, rose quickly between 1850 and 1852, then collapsed, rising again later in the decade and eventually dominating the industry. But hardrock mining's path to commercial viability was tortuous, filled with geologic, technological, and economic pitfalls that took many years to overcome.

As early as the spring of 1849, prospectors near Mariposa found pockets of high-grade gold ore among the quartz outcrops along a mineralized fault zone eventually traced for nearly two hundred miles. Miners called it the "Mother Lode," and popular literature today has often confused it with the more productive foothill deposits farther north in Nevada County, where California hardrock mining had its longest and most lucrative stand. But the initial excitement, overlaid with geologic ignorance and economic impetuosity, focused on the Southern Mines, where the outcrops were most extensive. Enthusiastic mine promoters imported European machinery at great expense, overbuilding the surface plant before understanding the size and nature of the orebody—a management mistake all too common in early American hardrock mining. After two or three years of effort, underwritten primarily by naive British investors relying on dubious field reports prepared by inexperienced and self-serving operators, the bubble burst. The mines shut down, the surface plants were abandoned, and investment capital dried up, leaving a sour taste for hardrock mining that took years to overcome.⁵⁰ A contemporary British observer, writing from Mariposita in the fall of 1852, recorded the frustration by noting that the "character of the country has yet to be ascertained, and it will not be found out by the guesser or mere prospector, but by the man of practice and experience. At present all is guess, and hope, and chance."⁵¹ Rossiter Raymond later attributed the failure to "errors of judgment" rather than to "gross mismanagement," pointing out that Old World mining methods were inapplicable in California because of differences in ore character, labor costs, scarcity of materials, and climate.⁵²

To remedy the situation, as Rodman Paul, the late dean of modern California mining historians, has written, a few practical miners, burned by the initial failures, inaugurated the "real beginning" of hardrock mining in California in the early 1850s, when they "set out to teach themselves in the fields of geology, mineralogy, engineering, and mechanics."⁵³ Building practical experience meant adapting available technologies to local conditions, the same pragmatic approach already seen in the gold-rush placer camps. California miners had much to learn. Their collective ex-

perience with hardrock mining was minuscule in comparison to immigrants from older hardrock districts, both in the United States and abroad. But early quartz mining was relatively simple because only the shallow deposits were worked. Before the 1860s California mines rarely reached levels below three hundred feet, the maximum depth of groundwater. Above that level, gold deposits containing sulfides, or "sulphurets," were subject to the natural processes of oxidation, leaching, and erosion, leaving a zone of "enrichment," higher in grade and easier to mine and mill than the deeper, unoxidized sulfide deposits. Thus, smart early mine operators kept to the shallow, weathered deposits and used simple methods. From more experienced underground miners from England, Germany, Mexico, and the lead and copper mines east of the Mississippi, they learned the basic techniques for opening a mine by vertical shaft or horizontal adit, advancing the heading by drilling and blasting, drifting and crosscutting to locate the most promising leads, draining and ventilating, timbering, and hauling and hoisting ore and waste.⁵⁴

As the mines deepened, more complex technology was needed. Except for the occasional use of donkeys, mules, or horses to pull ore cars, before the 1860s most of the underground work was hand-powered and labor-intensive. Two-man "double-jack" drilling crews were required to set an effective charge with black powder, since drill holes had to be large in diameter. Dynamite needed smaller holes and fewer workers to handle but did not come into practical use until the late 1860s and early 1870s, and even then its use varied from district to district. In Grass Valley mines, where Cornish crews predominated, for instance, black powder and double-jacking remained the prevailing technology until 1869, when managers tried to introduce dynamite. The effort set off a nine-week strike ending in a compromise that kept out dynamite for another three years but opened the mines to single-jacking. Other districts lacking strong Cornish labor representation made a smoother transition to newer technology.⁵⁵

Machine drills eventually replaced hand-drilling, but the change was slow and uncertain. The availability of innovations did not mean they were readily or widely adopted. Air-powered piston drills were not practical for underground work until the 1870s, and the rock dust they kicked up made them dangerous, especially in quartz mines high in silica. Furthermore, the early machines were awkward and expensive to install, requiring a new surface plant, at least two operators, and more space underground than many mines had available. Some historians have argued that labor resistance retarded the introduction of machine drills, although that view has been challenged by more recent scholarship, which has demonstrated that in some mines, at least, the issue was not health or jobs but basic economics. To financially pinched mine managers, the question often was not whether a new machine would work but whether it would help reduce operating costs. Thus machine drills were not widely used in the West until they were smaller, cheaper, more efficient, more durable, and

safer. The real era of machine drilling did not begin until after water-cooled Leyner percussion drills were introduced in the late 1890s.⁵⁶

Technological innovation also depended to some extent on the size and ethnicity of the work force. As John Rowe has observed, Old World technology reflected Old World attitudes and labor practices. In Cornwall, for example, with more workers than jobs available, mining machinery was used primarily to do work that animals and men could not perform; in America, with fewer workers and therefore higher labor costs, machines were designed to replace manual labor. The quality and durability of Cornish machinery also reflected the solid legacy of the Cornish mining heritage and the pride of its craftsmen. In contrast, American machinery was cheaper, less well built, and more easily replaced—a reflection of the newness and speculative nature of American mining—with owners and investors “all the more ready to scrap efficient but slow machines for novelties which promised vaster and quicker returns.”⁵⁷

In the mines of the northern Sierra, where the Cornish influence was strongest, Old World technology was reflected in both mining and milling methods. “Cousin Jacks” dominated the drilling crews, and Cornish foremen supervised underground operations. The first Cornish pump in California was installed at the Gold Hill mine in 1855, and the first ore-crushing stamp mills in the district were of Cornish design, although they soon gave way to the improved California mills.⁵⁸ Cornish methods also prevailed in the milling cycle. Finely ground mill pulp was discharged into long wooden troughs lined with coarse wool blankets especially made for the purpose. Every fifteen minutes the blankets were carefully removed and washed in amalgamation tanks to recover minute particles of metallic gold. The blanket-washing process, a technology used in Cornwall for centuries, was one of the distinguishing features of what became known as the “Grass Valley System.”⁵⁹

The Cornish presence was welcomed by mine and mill managers, many of whom were themselves Cornish, commissioned by English investors counting on their countrymen to protect their mutual interests.⁶⁰ Underground and in the surface plants, Cornish mining and milling skill was highly regarded, no less so by their own countrymen. In 1852 W. E. Gill, a Cornish miner from Truro, described his California experiences to a hometown newspaper: “Here some ability must be displayed in separating the gold without a loss, and here John [Bull] respectfully takes leave of Jonathan [Yank]. The latter is evidently a better huxter than a mining engineer.”⁶¹ Another Cousin Jack in Michigan, commenting on Cornish resistance to the introduction of dynamite, remarked that “Cornishmen are good miners, and good mine managers—they ought to be—but they are just as apt as others to conclude that what they do not know is not worth knowing.”⁶²

Along the Southern Mines of the Mother Lode, as in the placer districts, the technology reflected a strong Hispanic heritage. Mexicans were in great demand at

first. They brought with them a four-hundred-year hardrock legacy, though their mining methods were less popular than their milling technology.⁶³ As Otis Young has observed, with some hyperbole, the Hispanic legacy profoundly influenced American milling. "Until the late 1880's," he wrote, "the western mining frontier depended so heavily upon Spanish milling methods that it is almost correct to say that millmen used little else but Spanish techniques hooked up to steam engines."⁶⁴ "Almost" is the great qualifier in this statement, especially as it applies to northern California, since that region produced ores distinctly different from those in the Southwest and Mexico, requiring different milling methods.

The most important Spanish technique to California millmen was the *arrastra*, a shallow, rock-lined circular pit where hand-sorted and broken ore could be ground and amalgamated by drag-stones powered by horse, mule, or waterwheel when sufficient water was available. Simple to construct and operate, using local materials widely available, it was the only successful milling tool for quartz miners in the early days. The Chilean mill, which crushed ore under millstones rolling over a stone patio or iron pan, was also used to a limited extent, and the principle was later employed in rotary grinders such as the Huntington mill, a widely used, medium-sized secondary crusher of California origin.⁶⁵ But traditional "Chili mills" and "rasters" were too small and slow for American miners, who needed a higher volume of production to meet lode mining's heavy capital expenditures and labor costs.⁶⁶ *Arrastras* continued to be used, mostly for reprocessing tailings, right into the twentieth century, but for bulk secondary crushing Americans turned to the stamp mill.

THE CALIFORNIA STAMP MILL

Pulverizing ore by mortar and pestle was an ancient technique. Prospectors used small mortars to test quartz outcrops during the Gold Rush, but the same principle had been used long before to develop a mechanical crusher common in European mills. Agricola claimed it had been invented in the late fifteenth or early sixteenth centuries, and found it in use in the mining districts of Germany and Switzerland.⁶⁷ Otis Young, emphasizing its southwestern connections, claimed the Spanish *maza*, or water-powered mill, a device using a single wooden pestle, or "stamp," and a square stone mortar, was "evidently a progenitor of the 'California' gravity stamp mill."⁶⁸ Rodman Paul believed stamp-mill technology arrived in the Far West by way of the American South, where it was in place in Georgia, Carolina, and Tennessee by the 1830s and 1840s.⁶⁹ Others claim the honor for Cornwall, noting that Cornish miners brought hardrock milling methods to California at least before 1855.⁷⁰

Whatever their origin, imported mills were inadequate to meet California needs. German and Mexican mills used wood for pestle stems and mortar boxes, both subject to warping or leaking when wet and too flimsy for heavy use. Cornish and



The interior of a quartz mill at Grass Valley, Nevada County, the leading center of hard-rock mining, as illustrated in the October 1857 issue of *Hutchings' California Magazine*. To the rear stand two four-stamp batteries, or mills. The cast-iron "stampers," or pestles, weighing from six hundred to a thousand pounds, were raised by the revolving horizontal driveshaft and then fell with tremendous force to crush fist-sized pieces of ore to powder. *California Historical Society, FN-30967.*

Spanish mills had iron stems, split at the lower end and welded onto a cast iron shoe. Stamp heads in these older models were square and wore unevenly as the shoe dropped constantly on the same spot. The mortars were open at the bottom and mounted on stone plates or bedrock. Ore was broken and fed by hand to each stamp, which crushed dry and unevenly with an ear-shattering noise, accompanied by billowing clouds of silica dust.⁷¹

American millmen, working with these erratic imports, engineered pragmatic alterations whenever necessary, borrowing ideas and designs freely. The result by the 1860s was a regional hybrid, the "California improved stamp mill." The standard unit consisted of a mechanical jaw crusher for breaking rock, an automatic feeder, a five-stamp battery with fine-tooled, interchangeable parts, a heavy iron mortar, and an apron over which the pulp flowed on its way through the milling circuit. Most California mills used primary crushers manufactured in San Francisco from designs by Eli Whitney Blake, an authentic Connecticut Yankee who invented the machine in the 1850s for road construction work.⁷² Gravel-sized ore mixed with water and fed into the mortar was ground between cast-iron shoes fitted onto the stamp heads and cast-iron dies attached to the mortar floor. Shoes and dies were easily removed for repair or replacement. A wooden bull wheel powered by water or steam in the early days, and electricity after 1890, turned a camshaft that lifted and rotated tappets connected to each stamp in a sequence designed to spread the wear and the pulp evenly. The mortar, a cast-iron box weighing several tons, came in various shapes and sizes to meet individual milling requirements.⁷³

California gold mills, unlike silver mills in Colorado and the Southwest before the 1890s, usually wet-stamped, adding mercury along with water and reagents to the mortar box during the grinding process to improve recovery.⁷⁴ Wet-stamping in battery eliminated the dust problem and lowered the noise to a muted thunder, still too loud for millmen to talk normally but less harmful to the psyche, if not to the hearing. More important to millmen, wet-stamping helped to equalize the pulp, to keep it flowing in wave-like pulses through the mortar screens, and to clean the gold for better amalgamation. In mills that preferred dry-stamping, the improved California design closed the battery "as tightly as possible" and added a blower to move the dust into settling chambers, sometimes with the aid of steam.⁷⁵

By the 1860s the California mill had become the standard design in the mining West, regardless of the type of ore, the size of the orebody, or the financial condition of the mine or mill. Single, five-stamp batteries found their way to remote mining camps throughout the West as well as overseas. In the larger mining districts west of the Rockies, twenty-, forty-, and sixty-stamp mills were not uncommon. Most of this complex equipment, along with hundreds of other types of mining and milling machinery and parts, was produced in San Francisco. More than forty foundries, machine shops, and iron works operated in the city by the mid-1860s—contributing to



A horse-drawn wagon moves slowly past the Miners' Foundry and Machine Works on First Street, just north of Folsom, in San Francisco, about 1865. The iron working industry had its origins in the American West less than a mile from here, when in the summer of 1849 James Donahue rigged up a simple charcoal forge for a smithy. With the rise of hydraulic and hardrock mining, the demand for castings soared, and the foundries and machine shops of San Francisco quickly earned a national reputation for fabricating superior mining machinery. *Courtesy Society of California Pioneers.*

San Francisco's status as the industrial capital of the West during the Gold Rush and for nearly a half-century beyond.⁷⁶

East of the Rockies, ironworks in Chicago and other cities also began building California-type mills, usually modified to meet regional conditions. Colorado's complex silver ores, for example, much higher in sulfides than simpler California gold ores, needed deeper mortars, a longer and slower drop, lighter stamps, and a finer grind for efficient milling.⁷⁷

Before the development of cyanidation and flotation, fine grinding was usually a

curse for the millman who depended on gravity separation to treat gold and silver ores. The finer the grind the more likely the prospect of "sliming" the ore and "flouring" the mercury if battery amalgamation was used. "Slimes" were particles of mixed ore and "gangue," or nonmetallic waste, crushed and ground so fine that gravity had little effect. Most slimes could not be captured by ordinary gravity-separation processes and were thus lost in the tailings. California stamp mills were prone to sliming if not carefully monitored. But they lasted well into the twentieth century, economically and efficiently working away even in the major mills long after more effective ball and rod mills were available. As one practical engineer, a member of the Technical Society of the Pacific Coast, commented in 1900, "some one will probably invent a better machine than the California quartz mill for crushing rock and catching gold. It has its faults, and yet its much-condemned sliming tendency is too often the fault of the millman. It is simple, relentless and conscientious, with fewer faults than cling to many of its operators."⁷⁸

GOLD-RUSH TECHNOLOGY AND EMERGING PROFESSIONALIZATION

Gold-rush technology was characterized by a frontier phalanx of enterprising amateurs altering or upgrading traditional techniques to meet local conditions. These were practical men—miners, millmen, blacksmiths, self-taught engineers, and other artisans—working independently at the job site or nearby on innovations designed for specific tasks. They were responsible for bringing hydraulic mining, drift mining, and stamp milling to the peak of perfection, and were behind many of the other machines and methods associated with the mining industry in nineteenth-century California.

Alongside them gradually emerged another technological prototype, the professional engineer, but it was a long struggle. Gold-rush miners and their followers generally believed that experience was the only sure path to pay dirt. Educated engineers or geologists were thought too theoretical, too unfocused and impractical, to work in the field either as prospectors or managers. Most professional engineers before 1870 were foreigners, trained in European schools—another mark against them in the minds of Americans still brimming with the fervent nationalism of the Jacksonian era.⁷⁹

As the mining industry stabilized and expanded by the 1860s and 1870s, and as new investment capital came into California after the Civil War, new technology and science also entered. Deeper mining required more complex geological knowledge and more sophisticated machinery and methods. Investors wanted better information, the advice of experts, before risking their money. As the industry changed, so did the older ways of thinking. Mine managers and millmen, once resistant to sci-

ence, now became more receptive, especially if science had practical application. The result was an increasing opportunity for professionals in the mining industry.⁸⁰

One manifestation of this changing view was the clamor for a statewide geological survey. In the early 1850s, the legislature had appointed a state geologist, John B. Trask, but he was an "enthusiastic amateur," unequal to the task. In the waning years of the Gold Rush, renewed calls for a systematic state survey led to the 1858 appointment of Josiah D. Whitney as director. He was a professional geologist trained at Yale and in Europe, with a distinguished record. Expecting a thorough analysis of ore deposition in California, however, the mining interests were disappointed in the results. Over a thirteen-year period, Whitney and his professional staff produced and published a compendium of California natural history rather than a catalog of mineral resources. The volumes were little immediate help to the regional mining industry, but, as Rodman Paul has noted, the California Survey was the training ground for many geologists who went on to do important work at both federal and state agencies.⁸¹

At the federal level, some geologists first found jobs in a national agency organized at the urging of U.S. Senator Cornelius Cole of California and the mining interests that backed him. They proposed a national mining bureau to gather data on specific mining regions and operations. The result was congressional legislation in 1866 that established the office of U.S. Commissioner of Mining Statistics under the Treasury Department. The ten annual reports issued during the agency's brief existence by commissioner J. Ross Browne, a Californian, and his successor Rossiter Raymond were filled with technical information gathered by an excellent field staff and are still valuable today as an important source of historical data on mining west of the Rockies.⁸² Raymond and Browne also contributed occasionally to the *Mining and Scientific Press*, a San Francisco serial that for sixty years reported comprehensive technical and economic news. Historian H. H. Bancroft called it "the leading journal on all matters connected with mining."⁸³

In the 1870s the Treasury Department's Office of Mining Statistics was superseded by the U.S. Geological Survey, the agency ultimately responsible for gathering and disseminating information on American science and technology. Beginning in 1879 with the production of topographical maps, then moving to the classification of public domain lands, within a decade the Geological Survey was providing many services directly benefiting the mining industry, including "topography, geology, paleontology, chemistry, illustrations, mineral resources, library, irrigation, and engraving geologic maps."⁸⁴

More directly beneficial to California mining was the State Bureau of Mines, established in 1880 by the legislature at the behest of mining interests. Headed by a state mineralogist appointed by the governor, the bureau was empowered to collect and preserve mineral specimens and detailed information on mining and milling

methods, cultivate mining and metallurgical education, make on-site inspections, and prepare detailed reports on mining operations in each district throughout the state. With dedicated professional staffing, the bureau soon proved its worth by inaugurating a series of informative reports, bulletins, and technical leaflets that continue to the present day.⁸⁵

Another result of the interest in professionalization was the first state efforts to provide technical education. Taking advantage of the federal Morrill Act (1862), giving public lands to the states for educational purposes, the California legislature in 1865 first proposed an "Agricultural and Mechanical Arts College." Under pressure from mining interests the lawmakers soon revised the title to "Agricultural, Mining, and Mechanical Arts College," and added a sentence emphasizing "the application of mechanical arts to practical agriculture in the field and mining." Opening in 1868, the new college, renamed the University of California, took years to graduate its first geologists and engineers. In the meantime eastern and European schools supplied the state with trained personnel.⁸⁶

The presence of immigrant and later home-educated professionals increased the potential for rapid technological advances in California mining and milling, but the rate of change was differential, erratic, and unsystematic. Each sector of the industry independently moved forward, or sometimes backward, depending on local circumstances and personnel. In gold milling, for example, the Grass Valley System was widely adopted in California, but by the 1870s millmen could choose among a variety of techniques, each claiming advantages in cost and efficiency. The choice depended essentially on the type and grade of ore to be processed, matters that required professional training in mineralogy and metallurgy. G. F. Deetken, the man credited with perfecting the Grass Valley System, developed an elaborate procedure that began with fine-crushing and amalgamating in the stamp battery, then discharging the pulp onto blankets to catch the "fines," cycling the slimes and sands through several amalgamating tanks and tables for additional concentration to separate gold from gangue, and finally subjecting the concentrates to heating and chlorinating. But his system was designed for ores relatively low in sulfides. Ores with heavier sulfide content required much different treatment. In the 1880s, M. P. Boss of San Francisco patented a continuous milling process for both gold and silver ores. Touted as less expensive because it saved water and required fewer men to operate, it was also designed to improve the recovery of slimes and floured mercury. The key to this technique was coarse grinding in battery with the "least amount of water requisite to carry the pulp through the screens." Dispensing with blanket troughs and washing tanks, the Boss process discharged pulp into a series of grinding pans with automated mercury feeders, then settlers, and finally through a concentrating circuit. At the California mill in Virginia City, Nevada, completely revamped after the "Big Bonanza" days, the mill tailings were discharged into a series of tailings sluices "ex-

tending down the canyon" toward Dayton.⁸⁷ Cyanidation eventually replaced both these systems, but it came slowly to California, not making real headway until after 1900, a decade after it was introduced. By that time almost all California mines were deeper, working in lower-grade ore often higher in sulfides, which were ineffectually treated using only gravity-separation technology.

CONCLUSION

By the 1870s, California mining still retained vestiges of the gold-rush era but had reached the status of a modern industry. As Rodman Paul has written, it began as an adventure, changed into a business run by practical miners, and finally evolved into an industry in which the "dominant figure" was not the "honest miner" of the foothills but the "financier" and the "highly paid consultant or superintendent who made of mining a science and a profession."⁸⁸ This transition to modern mining came not through sweeping technological changes like a rising tide, but by piece-meal, step-by-step movement, mostly forward but often erratic and sometimes lateral or even backward. California mine managers occasionally had a conservative streak, resisting technology that cost money even if it improved efficiency or mine safety. William H. Storms, a California state mining inspector, deplored such parsimony. He publicly condemned the "antiquated" and "objectionable" methods employed by such men as Alvinza Hayward, who opened huge stopes where ore was removed without adequate timbering in order to return quick profits despite the danger.⁸⁹

California mining had distinctive features that marked it as a regional variant if not a separate species. Though the Gold Rush lasted only a few years, it built a foundation for technological progress and urban-industrial development that continues today. The Golden State's timber and water abundance gave it advantages over drier districts and stimulated advances in peripheral technology such as dam and bridge design, dredging and excavating, and hydroelectric generation. Its massive gold deposits made it different from mining regions in the western interior, which had a different geology and a later development. Nowhere else was there such great opportunity for small-scale entrepreneurial mining as in California, which took longer to pass through the pioneer stage than other mineralized regions of the world. Industrial mining eventually arrived, bringing with it rapid technological advances based on adaptive design and pragmatic innovation, and reducing most of the work force to hired hands guided by professional managers. Yet small-scale entrepreneurial mining lingered on into the twentieth century, providing a psychological link to the Gold Rush and a cultural continuity that ties the past to the present. Today's recreational miners, whether with gold pans or suction dredges, still seek instant riches in the chilly waters of foothill streams. But there is also another form of

wealth-seeking in the cities and industrial zones of coastal California, where much of the wealth generated by gold mining eventually came to rest. The legacy of the Gold Rush lives on in the quest for riches in the form of good jobs, good living, personal fulfillment—the same things California Argonauts sought 150 years ago.

NOTES

1. Dianne Newell, *Technology on the Frontier: Mining in Old Ontario* (Vancouver: University of British Columbia Press, 1986), 148.
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3. Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," *Science* 155 (March 10, 1967): 1203–7.
4. Newell, *Technology on the Frontier*, 13.
5. Otis Young, *Western Mining: An Informal Account of Precious-Metals Prospecting, Placering, Lode Mining, and Milling on the American Frontier from Spanish Times to 1893* (Norman: University of Oklahoma Press, 1970), 55–58.
6. Newell, *Technology on the Frontier*, 1–2.
7. H. J. Habakkuk, *American and British Technology in the Nineteenth Century: The Search for Labour-saving Inventions* (Cambridge: Cambridge University Press, 1967), 96–97.
8. Thomas A. Bailey, *A Diplomatic History of the American People*, 3rd ed. (New York: Appleton-Century-Crofts, 1946), 859.
9. Doris M. Wright, "The Making of Cosmopolitan California: An Analysis of Immigration, 1848–1870," *California Historical Society Quarterly* 20 (1941): 73–74.
10. Jermone O. Steffen, "The Mining Frontiers of California and Australia: A Study in Comparative Political Change and Continuity," *Pacific Historical Review* 52 (1983): 428–40.
11. Habakkuk, *American and British Technology*, 220.
12. John F. Kasson, *Civilizing the Machine: Technology and Republican Values in America, 1776–1900* (New York: Viking Press, 1976), 46–47.
13. Nathan L. White, "The Interrelationship between the Gold Mining Period in Sierra County, California, and the Development of the Sierra County Lumber Industry" (M.A. thesis, University of the Pacific, 1961), 76–89.
14. These achievements were regarded as unmitigated triumphs by nineteenth-century historians such as Hubert H. Bancroft and John Hittell. Modern scholars are more distant, more objective, and more critical in evaluating the consequences. See, for example, works by Donald Worster, Malcolm Rohrbough, Richard White, Carlos Schwantes, and Patricia Limerick.
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16. J. Ross Browne, "Report of J. Ross Browne on the Mineral Resources of the States and Territories West of the Rocky Mountains," in U.S. Treasury Dept., *Reports on the Mineral Resources of the United States* (Washington, D.C.: Government Printing Office, 1868), 8–9.

17. Rossiter W. Raymond, "Metallurgical Processes," in *Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains*, part 5 (Washington, D.C.: Government Printing Office, 1870), 727; Browne, "Report," 8-9.
18. Browne, "Report," 8.
19. Raymond, "Metallurgical Processes," 727.
20. Ibid.
21. Newell, *Technology on the Frontier*, 148. Donald Macleod found similar circumstances in Nova Scotia, where mine promoters and engineers by the 1880s "generally sought to acquire new mill technology soon after its first appearance, normally copied it in part only, took indigenous needs into account in implementing it, and modified it extensively to meet local requirements." Donald Macleod, "Miners, Mining Men and Mining Reform: Changing the Technology of Nova Scotian Gold Mines and Collieries, 1858 to 1910" (Ph.D. thesis, University of Toronto, 1981), 229.
22. Joseph Libbey Folsom, *A Letter of Captain J. L. Folsom Reporting on Conditions in California in 1848* (San Francisco: Grabhorn Press, 1944), 11-12; Henry De Groot, "Six Months in '49," *Overland Monthly*, 1st ser., 14 (1875): 316; Henry W. Bigler, *Bigler's Chronicle of the West; The Conquest of California, Discovery of Gold, and Mormon Settlement as Reflected in Henry William Bigler's Diaries*, ed. Erwin G. Gudde (Berkeley: University of California Press, 1962), 98-99, 108; Thomas A. Rickard, *Man and Metals. A History of Mining in Relation to the Development of Civilization* vol. 2 (1932; New York: Arno Press, 1974), 729; John W. Caughey, *Gold Is the Cornerstone* (Berkeley: University of California Press, 1948), 12-13, 26.
23. Philip R. May, *Origins of Hydraulic Mining in California* (Oakland: Holmes Book Co., 1970), 35-36.
24. Browne, "Report," 118-19; Young, *Western Mining*, 55-66.
25. Young, *Western Mining*, 91-98.
26. Georgius Agricola, *De re Metallica*, trans. Herbert and Lou Henry Hoover (1912; first Latin edition, 1556; reprint, New York: Dover, 1950), 156-57; Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (1947; reprint, Lincoln: University of Nebraska Press, 1967), 111-13; Young, *Western Mining*, 109.
27. Jacques A. Moerenhout, *The Inside Story of the Gold Rush*, trans. Abraham P. Nasatir, Special Publication 8 (1848; San Francisco: California Historical Society, 1935), 22.
28. Leonard Pitt, *The Decline of the Californios: A Social History of the Spanish-Speaking Californians, 1846-1890* (Berkeley: University of California Press, 1966), 60-67.
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33. William Blake, "The Mechanical Appliances of Mining," in *Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains*, part 4 (Washington, D.C.:

Government Printing Office, 1870), 602; Young, *Western Mining*, 114; Rohe, "Chinese River Mining in the West," 14-15; Robert Temple, *The Genius of China: 3,000 Years of Science, Discovery, and Invention* (New York: Simon & Schuster, 1989), 56-57.

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40. See, for example, May, *Origins of Hydraulic Mining in California*, 16-20; Young, *Western Mining*, 129.

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43. Paul, *California Gold*, 147-50.

44. *Ibid.*, 147-51.

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79. Clark C. Spence, *Mining Engineers & the American West: The Lave-boost Brigade, 1849-1933* (New Haven: Yale University Press, 1970), 25, 70-71.
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3

Capitalism Comes to the Diggings

From Gold-Rush Adventure to Corporate Enterprise

Maureen A. Jung

Mention the stock market, the rise of the modern economy, or the growth of corporations, and most people think of the New York Stock Exchange and railroads in the eastern states. When it comes to U.S. business history during the nineteenth century, relatively little attention has focused on California or the growth of mining corporations. Recent historians have rarely examined the role of corporations and the growth of stock exchanges in the mining West, apart from Marian V. Sears's rare volume, *Mining Stock Exchanges 1860-1930*, published in 1973.¹ California's unique contribution to the history of corporations has been neglected, in part, because of the long-standing interest in the more romantic, individualistic, and unorganized aspects of the Gold Rush. Thus, we still think of the Gold Rush as an adventure undertaken by individuals, although historians have recognized for more than a century that most emigrants traveled to California as members of companies.² Despite the importance of companies to the subsequent development of California's economy, we know relatively little about the pioneer firms that organized the Gold Rush. Similarly, we know little about the gold-field mining companies and corporations that superseded them. Few company records survive to tell the story. Apart from occasional mentions in diaries and letters, newspaper articles, government reports, and corporate filings, few reliable sources exist.³ Still, if we examine such records from an organizational perspective, we can begin to construct a history of California's mining companies and their role in a larger transformation: the development of the modern corporate economy that emerged in California during the decades following the Gold Rush. This process was characterized by three developments: the rise of business corporations, the widespread ownership and trade in corporate securities, and the formation of stock exchanges to organize investment.⁴

While railroads drove economic expansion in the eastern United States, mining



A company of miners at Lincoln poses for the pioneer California daguerreotypist William Shew sometime in the early 1850s. Even before the emergence of the heavily capitalized corporations that came to dominate mining in the Golden State, fortune hunters formed associations to undertake large-scale operations, such as turning a river out of its bed to expose the rich sand and gravel below. *Courtesy Bancroft Library.*

was the first industry in the West to widely adopt the corporate form of organization. Despite a history of animosity toward business corporations in the early nineteenth-century United States, a speculative boom occurred in California mining between 1851 and 1853. Dozens of mining corporations were formed. They attracted investment capital from the East Coast and even from Europe. During the 1850s, California mining was quickly transformed from individual adventure to an industry organized by corporations and worked by wage laborers. Although the early mining corporations succeeded in attracting outside investment, few produced profits or paid dividends. Disappointed investors quickly abandoned the California mines, which for years would have trouble attracting outside capital.

In 1859, however, interest in mining corporations surged once again. Discovery of gold and silver on the Comstock Lode triggered a mining industry boom in which

thousands of corporations were formed. This sudden growth fueled public interest and promoted widespread trade in mining securities, as California became the first site of broad public stock ownership and intense share trading. Such investments funded important advances in mining and initially revived California's stagnant economy. During the 1860s and 1870s, however, corporate insiders used the securities market as an organizational mechanism to wrest control over mining properties. Corporate power won out over individual rights, as insiders manipulated share prices, bilked investors, and drained companies. These activities diverted funds from more productive investments, injured workers' livelihoods, and damaged the economy as a whole. For all the imperfections of this system, however, these mining corporations played a central role in California's economic development and in the advance of the mining West.

BUSINESS ORGANIZATIONS PRIOR TO THE GOLD RUSH

Mining was a minor industry in the agriculture-dominated eighteenth century, though small-scale mines operated in several eastern and north-central states before the Revolutionary War. While a few corporations for mining and other purposes were established by 1800, most people in the United States viewed government-chartered business corporations with suspicion.⁵ State laws made incorporation for private profit a difficult process, which initially required passage of a special legislative act; they also placed severe restrictions on corporate size and span of operations.⁶

Partnerships were the dominant form of commercial enterprise in this country for much of the nineteenth century, adequately serving business interests from "small country storekeepers to the great merchant bankers."⁷ Larger business ventures often organized as joint-stock companies, a type of group partnership. Joint-stock companies offered two distinct advantages over traditional partnerships: ownership interest was divided into shares and the death or withdrawal of one partner did not end the partnership.

Unlike corporations, which were rooted in state authority, partnerships were based on individuals' freedom to associate, to pool their energies and capital for mutual advantage. This freedom was understood as a "right of business bodies, not . . . a privilege to be granted or withheld" by government rules.⁸ Partners participated in company operations on an equal footing. They maintained direct control over their ownership interests and often voted on company decisions. By contrast, corporate shareholders possessed only indirect, limited control over their investments—the ability to sell their shares, should they find a willing buyer. Despite the advantage of greater control, however, partnerships had one great drawback: each partner was fully liable for debts incurred by the company, an onerous burden in large-scale ventures.

Large-scale businesses such as railroads, mines, banks, and insurance companies

essed the state legislature for broader rights, including the ability to organize under general incorporation laws. Gradually legislatures relented, extending the term of life allowed corporations and limiting shareholder liability.⁹ Such changes gave corporations several distinct advantages over partnerships, which also made corporate stock a more attractive investment. Nonetheless, early shareholders were vulnerable to assessment calls when company management decided additional investment was necessary. Shareholders who neglected to pay the levied assessment forfeited their stock, and ownership reverted to the company.

As statutory limitations gradually loosened, growth in the number of corporations aroused public concern and stimulated popular support for government regulation of corporations and corporate securities.¹⁰ For decades, people viewed corporations as monopolies, as economic historian Clark Spence put it, "enemies of individual enterprise."¹¹ It is not surprising, then, that entrepreneurs formed relatively few corporations in the eastern states prior to the Civil War. Between 1800 and 1843, for example, total incorporations in six eastern states reached 3,249, only seventy-one of them formed under general incorporation laws, the rest by special charter.¹² The Panic of 1837 sharply curtailed incorporations, as thousands of banks and businesses failed. The ensuing depression continued well into the 1840s.

ORGANIZING THE GOLD RUSH: PIONEER MINING COMPANIES

Although rumors of the gold discovery in California reached the East Coast in mid-1848, it was President James Polk's December message to Congress that riveted public attention. He affirmed the rumors were true. There was gold in California, on public land, and free for the taking. Many men resolved to hurry to the gold fields, acquire a quick fortune ("strike it rich"), and return home to establish a respectable business. Across the country, men organized partnerships and joint-stock companies and made plans to seize their riches. Dozens of elaborately organized companies were ready to sail before a month had passed. On January 24, 1849, the *New York Herald* listed forty-seven companies, with a total of 2,499 members, ready to leave.¹³ A few days later, the *Herald* reported that while a few impetuous individuals had already left for the gold fields alone, most men planned to travel as members of companies. In what was surely an exaggeration, the newspaper stated that already 10,001 companies had "sprung up like mushrooms—all a lot alike," and listed thirty-two articles typically adopted by such companies.¹⁴

Like other partnerships, equality was the organizational principle upon which these companies were founded. Members of the Perseverance Mining Company of Philadelphia, for example, vowed to "pursue such business in California, or else where, as shall be agreed upon by a majority of its members, and that the expenses

of the company shall be mutually borne and the profits equally divided. . . . We hereby pledge ourselves, to support and protect each other in case of emergency and sickness, and in all cases to stand by each other as a band of brothers."¹⁵

Members usually elected officers and voted to determine company actions. Members of larger companies also worked together under an agreed-upon division of labor. While not all companies published formal articles of agreement or printed membership shares, members shared a unity of purpose. They joined together to improve their chances of success as they journeyed to a distant and, to them, unknown land to engage in mining, an occupation about which almost all were entirely ignorant.

Company organizers were often community leaders, who solicited members by newspaper advertisement, handbill, or word of mouth.¹⁶ Members, often from a single locale, commonly had to forswear alcohol, strong language, and gambling. Company size varied greatly, from as few as three to over one hundred members. Share prices in the companies also varied widely, from as little as \$50 to more than \$2,000. After formation, members met regularly to plan their California expedition. Money collected through the sale of company shares went to purchase and outfit a ship or buy wagons and mules or oxen for the journey. Companies traveling by sea frequently bought supplies intended for sale in California. Many took along elaborate mining contraptions they later found to be useless. Not surprisingly, companies from eastern seaboard states were more likely to sail to California around Cape Horn or via the Isthmus of Panama, while those from the western states (Wisconsin, Illinois, Arkansas, and Missouri) usually traveled overland by wagon train or pack mule.

Despite all their careful plans and businesslike approach, few gold-rush adventurers were prepared for the planning and provisioning necessary on a journey that could last six months or more. Few anticipated the adventure ahead, or the ordeals and downright tragedies so many of them would face. The story of the Gold Rush unfolds in the changing landscape of companies struggling against their environments and among themselves, whether they circled Cape Horn, crossed Panama, or traversed the continent. They faced inestimable odds, and few companies survived the journey intact. Of those that did, most voted to disband shortly after arrival in California. While some men set out alone for the diggings, many chose to travel with a partner or small band of companions as they began their search for fortune. Although most pioneer mining companies were short-lived, they served as important models for companies the adventurers established in the diggings.

REORGANIZING THE GOLD RUSH: MINING COMPANIES IN THE GOLD FIELDS

In the absence of established cities and towns, mining districts became the basic political unit in California's gold fields. Although they initially had no legal standing,



EMIGRATION TO CALIFORNIA !

Do you want to go to California ! If so, go and join the Company who intend going out the middle of March, or 1st of April next, under the charge of the California Emigration Society, in a first-rate Clipper Ship. The Society agreeing to find places for all those who wish it upon their arrival in San Francisco. The voyage will probably be made in a few months.— Price of passage will be in the vicinity of

ONE HUNDRED DOLLARS !

CHILDREN IN PROPORTION.

A number of families have already engaged passage. A suitable Female Nurse has been provided, who will take charge of Young Ladies and Children. Good Physicians, both male and female go in the Ship. It is hoped a large number of females will go, as Females are getting almost as good wages as males.

FEMALE NURSES get 25 dollars per week and board. **SCHOOL TEACHERS** 100 dollars per month. **GARDNERS** 60 dollars per month and board. **LABORERS** 4 to 5 dollars per day. **BRICKLAYERS** 6 dollars per day. **HOUSEKEEPERS** 40 dollars per month. **FARMERS** 5 dollars per day. **SHOEMAKERS** 4 dollars per day. Men and Women **COOKS** 40 to 60 dollars per month and board. **MINERS** are making from 3 to 12 dollars per day. **FEMALE SERVANTS** 30 to 50 dollars per month and board. Washing 3 dollars per dozen. **MASONS** 6 dollars per day. **CARPENTERS** 5 dollars per day. **ENGINEERS** 100 dollars per month, and as the quartz Crushing Mills are getting into operation all through the country, Engineers are very scarce. **BLACKSMITHS** 90 and 100 dollars per month and board.

The above prices are copied from late papers printed in San Francisco, which can be seen at my office. Having views of some 30 Cities throughout the State of California, I shall be happy to see all who will call at the office of the Society, 28 JOY'S BUILDING, WASHINGTON ST., BOSTON, and examine them. Parties residing out of the City, by enclosing a stamp and sending to the office, will receive a circular giving all the particulars of the voyage.

As Agents are wanted in every town and city of the New England States, Postmasters or Merchants acting as such will be allowed a certain commission on every person they get to join the Company. Good reference required. For further particulars correspond or call at the

SOCIETY'S OFFICE,

28 Joy's Building, Washington St., Boston, Mass.

Proprietor John Brown, 142 Washington Street, Boston.

Handbill of the California Emigration Society, Boston, advertising passage to California "in a first-rate Clipper Ship." Published in 1856, it promoted the economic opportunities to be found in the new El Dorado. On the verso, notice was made of mining companies offering wages of "\$4.00 per day and board to steady workmen," testifying to the transformation of gold mining from individual adventure to corporate enterprise. *Courtesy Huntington Library, San Marino, Calif.*

codes were framed by the miners of each locale, which regulated both social behavior and mineral rights within the district. So fundamental did these miners' codes become to the regulation of mining that both state and federal governments refused to intervene for nearly two decades. While miners' codes varied across California's mining districts, two elements were central to nearly all of them: discovery and work. The man who "discovered" or "claimed" an area, then marked it and recorded the location, acquired its mineral rights. To retain these rights, the codes required miners to work their claims steadily, as many as twenty days per month in some districts. Most of the early codes limited claim size to what a single person could mine alone, initially 100 to 150 square feet. Size limits and work requirements effectively prevented absentee ownership and the monopoly of mining claims, both of which were strongly opposed by most miners.¹⁷ It is no surprise, then, that in his study of western mining camps, historian Charles Shinn judged that buying, selling, and speculating in mining claims were activities that were probably foreign concepts to the early gold-rush miners.¹⁸ Individual rights were paramount. As miner Samuel Upham observed, "no chartered institutions have monopolized the great avenues to wealth. . . . everyone has an equal chance to rise. . . . Neither business nor capital can oppress labor in California."¹⁹ Equality of ownership was the principle underlying the mining codes.

Within this context, working miners, a majority of the early population in the mining districts, viewed one another in a particular light. "All men who had or expected to have any standing in the community were required to work with their hands, labor was dignified and honorable," wrote early California historian Theodore Hittell, "the man who did not live by actual physical toil was regarded as a sort of social excrescence or parasite."²⁰

Yet things changed quickly in the gold fields. By April 1850, John Banks, a former member of the Buckeye Rovers, an Ohio company, described what typically happened in each new mining camp. Newcomers arrived steadily, forming "almost one continuous stream of men. Every place is snatched up in a moment. This canyon is claimed to its very head, nearly 20 miles, each man being allowed but 20 feet."²¹ As the number of gold seekers outpaced the number of claims discovered, and as the technology and capital needed to work the diggings exceeded the resources of individual miners, they formed partnerships and joint-stock associations and worked together. California historian and philosopher Josiah Royce referred to this organizing tendency as a unique attribute of the American character, "a natural political instinct," yet it was based on practical experience.²² As gold-rush traveler and miner J. D. Borthwick observed, despite the "spirit of individual independence" many Americans proclaimed, "they are certainly of all people in the world the most prompt to organize and combine to carry out a common object. They are trained to it from their youth in their innumerable, and to a foreigner, unintelligible caucus-meetings, committees, conventions, and so forth."²³ To men already accustomed to working to-

ther for mutual advantage, forming companies to pursue mining operations seemed an obvious alternative. Indeed, the miners had little choice, as earnings fell readily through the early 1850s. Estimated at about \$20 per day in 1848, miners' daily wages dropped from about \$16 in 1849 to \$10 in 1850 and to \$8 or less in 1851, and down to about \$3 a day between 1856 and 1860.²⁴ At the same time, another change took place. Between 1848 and about 1850, miners' "wages" referred to earnings from a day of mining, whether the individual worked on his own account or was employed by a company.²⁵ By 1851 fewer men mined "on their own hook," and the term took on its modern connotation: the earnings of wage laborers.

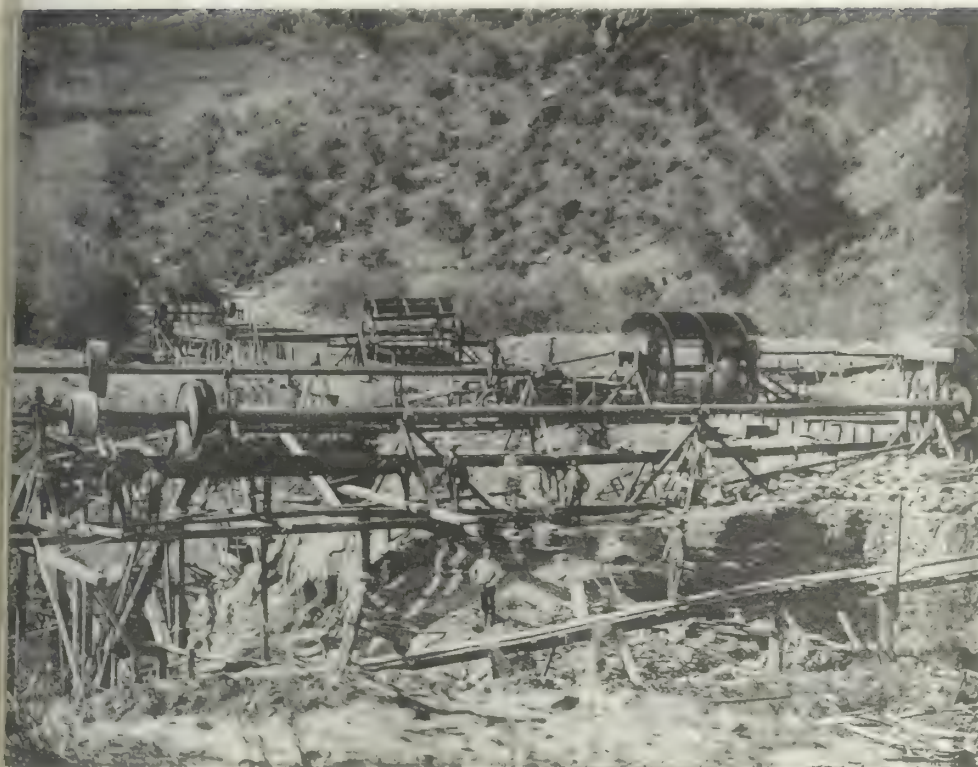
Mining underwent a transformation. From individual adventure and competition, mining operations began to resemble factories in the eastern states and Europe, with distinct divisions of labor and differential pay scales. While competition over claims increased and miners' wages fell, easily acquired gold was fast depleted. On July 15, 1851, San Francisco's leading newspaper, the *Alta California*, appeared pessimistic about prospects for the industry: "Now we hear of the complete exhaustion and abandonment of many of the diggings." Miner John Banks felt the stress acutely: "We have left our claim like hundreds of others. . . . Misery loves company; we have plenty. . . . Men are frightened, some starving, confused, not knowing what to do, where to go. . . . Prospecting is a necessity and a dangerous business."²⁶

Technological advances, such as the rocker, the sluice box, and the long tom, permitted miners to work more efficiently. By instituting a division of labor, miners were able to exploit their claims more systematically than was possible working alone. While the work was rigorous, costs were relatively low given the labor-intensive methods of placer mining. Gold-field mining companies, mostly partnerships and joint-stock companies, shared many similarities to the pioneer mining companies in which so many had emigrated. Both were voluntary associations in which members participated equally or proportionally in the labor, costs, and profits, if any. Members exercised voting rights on company decisions, worked under an elected foreman, and operated on the principle of joint shares.²⁷ Claims turned over quickly, as miners made a discovery, swarmed in to exploit it, and moved on. Mining partnerships and companies formed quickly and could be dissolved just as quickly when things went wrong, as they often did. Rampant rumors sent miners scrambling from one reputed bonanza to the next. A few lucky souls struck pay dirt, but most struggled, subsisting on whatever came to hand.

Though many gold-rush adventurers returned home with empty pockets, others applied themselves to solving the technical and organizational problems of mining for gold. To solve the major obstacles to finding, extracting, and processing gold, miners developed three new large-scale approaches to mining during the early 1850s: river, quartz, and hydraulic mining. Each approach had its own particular set of costs. In river mining operations, supplies and building materials for flumes, dams, and ditches



Miner Prospecting, a hand-colored lithograph designed and drawn by Charles Nahl and August Wenderoth, illustrates the archetypal California gold seeker of romance and legend. The two artists, who spent the summer of 1851 mining at Rough and Ready in Nevada County, portrayed the heavily armed and well-outfitted Argonaut as solitary, self-reliant, and resourceful. Published in San Francisco in 1852, the print contributed to the popular image of the gold hunter that has endured for a century and a half. *Courtesy Bancroft Library.*



River mining, about 1852. A dam has been constructed upstream, diverting the watercourse into a flume, visible on a diagonal cutting across the daguerreotype image. The large water wheels powered by the flume turn huge driveshafts, connected by leather belts to pumps, which keep the exposed riverbed dry. Though highly speculative, river mining was widely practiced, the first of the large-scale entrepreneurial enterprises pursued in the diggings. In 1853 several companies working independently spent three million dollars turning twenty-five miles of the Yuba out of its bed. *Courtesy Bancroft Library.*

consumed money. Similarly, hydraulic operations required huge quantities of water delivered to the mine site, while quartz mining involved extracting gold through deep shafts, then crushing and processing the ore, all expensive undertakings, particularly when the technology available then allowed for the recovery of so small a percentage of the gold. While technology presented formidable challenges to the miners, lawsuits over disputed claims and water rights became increasingly common. For years to come, law and water developed as subsidiary industries to mining.

Fighting lawsuits, building flumes and ditches, and developing large-scale quartz mining operations all required capital. Despite rising gold production during 1850 and 1851, the large number of men and the growing difficulty of extracting the gold led to changes in social relations in the gold fields and transformed the organization of mining operations. Until 1851, most money invested in California mines was pro-

duced by the miners themselves. With the changes and experiments with new technology and high interest rates on borrowing, the need for outside investment was apparent if the industry was to grow. At the same time, some observers viewed the organization of joint-stock companies and corporations as a positive sign that more stable industrial organization was emerging to displace the turbulent era of gold-rush adventurers. Felix P. Wierzbicki, who described his tour of the gold fields in a widely quoted pamphlet, *California as It Is & as It May Be, Or a Guide to the Gold Region*, predicted that "When this gold mania ceases to rage, individuals will abandon the mines; and then there will be a good opportunity for companies with heavy capital to step in; there will be enough profitable work for them; and it is then that the country will enter on a career of real progress, and not until then."²⁸

LAUNCHING A MARKET FOR CORPORATE SECURITIES

As some miners struggled to advance industrial mining and establish a scientific approach to mine operations, others turned their attention to the financial side of corporate organization. The most immediate, and notorious, manifestation was a speculative boom in quartz mining that rocked the state's economy between 1851 and 1853. California miners formed corporations, hoping to raise funds by selling corporate stock. To be successful, however, they had to overcome the legacy of suspicion attached to corporations and corporate securities.

California's state constitution followed the lead of several other states with regard to corporations. Chapter 128 of the state's legal codes, "An Act Concerning Corporations," was a general corporation law passed by the state legislature in April 1850. It permitted companies to incorporate without seeking approval of a special act of the legislature, although it prohibited bank corporations altogether. The law held shareholders "individually and personally liable" for a proportional share of corporate debts. In other words, those who invested in corporations were required to pay assessments levied by corporate management when additional funds were needed to keep the company afloat. These were not ideal conditions under which to attract investors, yet the need for outside investment was clear, if the mining industry was to revive and expand.

Until the rise of quartz mining, outside investors showed scant interest in California mining companies. River mining companies grew primarily through investments from and efforts by company members. Additional labor by the partners often compensated for a company's lack of ready cash. Quartz mining, the high technology of its day, was altogether different. Outsiders recognized quartz mining as a complex, capital-intensive activity that required sophisticated machinery and the application of scientific processes to free gold from the quartz. Quartz mining captured the imaginations of miners and outside investors alike, and heightened inter-

st in the trail of gold. The discovery of what appeared to be rich quartz deposits in Nevada County stimulated a rush to locate quartz claims in 1851. In the picturesque language of Edwin F. Bean, who compiled the 1867 Nevada County history and directory, "prospectors were running over the hills in every direction" in search of likely spots to stake claims.²⁹

Though few miners knew anything about quartz mining or processing, this lack of knowledge failed to inhibit their enthusiasm for organizing new ventures. As some miners transformed their companies into corporations and began to market shares to the public, many others sold or abandoned their claims, recognizing not only the technical problems, but also the difficulty of raising the money necessary to develop a quartz mine.

Just as newspapers sold the Gold Rush to adventurers in 1849, corporate promoters used the press to attract investors. They had to convince the public that mining was no longer a reckless adventure but instead was an industry conducted by sober businessmen with practical experience. Promoters contributed newspaper articles, wrote letters to editors, and served as sources for the press, and the papers responded with optimism. As the San Francisco *Morning Post* reported on October 13, 1851, "quartz mining in this country is no longer an experiment." In addition to marketing through newspaper advertisements, some promoters produced elaborate stock prospectuses for potential investors to examine.

Such promotional efforts paid off, if only temporarily. While no one knows with certainty the number of mining companies formed during the 1850s, the number of mining corporations can be estimated with some accuracy from copies of articles of incorporation filed with the California secretary of state.³⁰ Table 3.1 shows the number of corporations formed each year in California during the 1850s. Predictably, in a decade during which mining companies accounted for 75 percent of incorporations, the very first corporation was a mine: the California State Mining & Smelting Company. Organized and operated in Santa Clara County, this company incorporated with \$100,000 in capital stock.³¹ California's second corporation, the Mariposa Mining Company, was quite different. With \$1 million in capital stock, the sheer size of the company must have been mind-boggling to many early investors. Incorporated by seven San Francisco residents, who conducted company business from the city, mining operations took place in Mariposa County, on land leased from John C. Frémont.³² Company prospects seemed bright, and in 1851 Mariposa Mining Company securities were traded on both the London and Paris stock exchanges.³³ In a departure from earlier practices, its company organizers were not working miners. They held interests in other mining corporations; at least two acted as attorneys; and the company was closely linked with a leading San Francisco bank association, Palmer, Cook & Company. Despite such connections, the Mariposa Mining Company was unable to solve the technical problems related to quartz processing. Like

TABLE 3.1
Corporations Formed in California, 1850-1859, by County and Type

<i>County^a</i>	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	Total
Amador					2	6	4	3	3		18
Butte		1	9	1	5	18	18	18	12	5	87
Calaveras			3		8	2	4	5	6	4	32
El Dorado		1	5	4	6	1	1	5	1	1	25
Mariposa	1	2			2	1	1	2	2		11
Nevada		17	16	1	1	2	2	5	2	4	50
Placer			1	2	1	1	2	3	2	4	16
Sacramento		1	4	5	2	2	3		1		18
San Francisco		2			2	6	2	1	4	1	18
San Joaquin						1	3	3			7
Shasta			2	2	2						6
Sierra			1	3	3	2	1	2	2	3	17
Tuolumne			6	2	3	7	20	25	11	5	79
Yuba		2	2		3	3	1	5	1	1	18
Other ^b	1		4	4	4	4	7	2	3	1	30
<i>Type</i>											
Total mining & water corps. ^c	2	26	53	24	44	56	69	79	50	29	432
Total nonmining corps. ^d	1	1	11	17	26	24	12	18	14	20	144
Total corporations formed	3	27	64	41	70	80	81	97	64	49	576

SOURCE: Records of Incorporation and Articles of Incorporation, 1850-1859, California State Archives, Sacramento. Empty cells indicate no known corporations formed. Only "for profit" corporations are included in this tabulation.

a. Refers to the county in which the company was incorporated, as specified in the articles of incorporation.

b. Includes ten counties in which fewer than six corporations were formed and nine incorporations with no county specified.

c. Includes all companies with mining or water operations specified in the articles of incorporation.

d. Includes all companies not formed for mining or water operations. Major groups include 30 road or bridge companies, 28 wharf and shipping companies, 21 railroads, 13 gas companies, and 11 manufacturers.



The Mount Ophir Mill, located at the town of the same name, a half-dozen miles west of the county seat of Mariposa, within the boundaries of the extensive land grant acquired by John C. Frémont. In 1858, the year before Carleton E. Watkins took this photograph, there were twenty-four steam-driven stamps in operation at Mount Ophir. All that remains today of this once-vital mining center are a few crumbling ruins and colorful memories of days of gold. *California Historical Society, FN-24671.*

so many early mining companies, it was also plagued by lawsuits. Mariposa's legal disputes over mineral and water rights spanned a number of years and a variety of succeeding companies.

Just as California's legal profession developed in tandem with mining, banking also evolved as a subsidiary industry. Members of the leading bank associations were frequently aligned with the leading mining corporations. The linkage was natural. The banks handled both transportation and deposit of the gold produced in the mines. They frequently provided short-term loans for mining companies and often served as trustees on corporate boards.³⁴

Table 3.1 shows that promoters formed twenty-six mining corporations in California during 1851, the first year of the quartz boom. Capital stock in these companies ranged from \$100,000 to \$1 million. While there is no way of knowing how

much money was actually paid in to these corporations, it is clear that investors overall poured millions into mining corporations. Nevada County was the center for quartz mining during these early years. Thirty-three mining corporations, 42 percent of the total organized during the boom years of 1851 and 1852, were located in Nevada County. Along with the corporations, stamp mills to crush the quartz were also built, and, by November 1851, eight mills operated around the clock in Nevada County, and seven more were under construction.³⁵

Though Nevada County miners worked hard to develop quartz mines and mills, most of the early attempts were failures. The first mill builders found to their dismay that their ore-crushing stamps wore out after just a few months. Others had trouble importing machinery, and much of the machinery that arrived at the mines was worthless in actual operation. Once again, many sold out or abandoned their mining claims after exhausting both money and hope. In the fall of 1851, for example, John A. Collins & Company completed a ten-stamp mill that operated around the clock. Capable of crushing 100 tons of ore per day, this mill was considered one of the finest built to that date. Before the year was out, however, Collins & Company sold out to the Grass Valley Gold Mining Company, a corporation formed on July 25, 1851, with \$100,000 in capital stock and the option of increasing to \$250,000, should additional capital be needed. All five founders of the corporation listed San Francisco as their residence.³⁶

Relying on advantageous relationships with the press, letters and stories about the company appeared not just locally, but also in New York City. Company president Jonas Winchester was a former business associate of Horace Greeley, publisher of the New York *Tribune*. For a time in 1850 and in 1851, Winchester lived in New York City to promote interest in quartz mining and to advance the sale of his company's stock. During this time, he also assisted James Delavan, secretary of the Rocky-Bar Mining Company, who also journeyed to New York to promote his company. Both men wrote often and authoritatively on the subject of California mining, usually neglecting to reveal their financial interests and occasionally omitting to mention their names. On March 9, 1850, for example, a letter published in the *Tribune* and signed "J.W." reviewed the prospects for quartz mining in California. "With capital, machinery, and a proper scientific knowledge of mining, which must be rapidly introduced," the author wrote confidently, "you need not fear the supply of gold being less than thirty to fifty millions a year in this generation."³⁷ That same year Delavan anonymously published *Notes on California and the Placers: How to Get There and What to Do Afterwards*, an entertaining description of a trip to the gold fields and travel in the mines, which included an admiring account of the Rocky-Bar Mining Company and its rich prospects, without mentioning the author's affiliation with the company.³⁸ Such publicity efforts attracted public attention as well as investors, as more California mining companies chose incorporation to raise capital and increase the scope of their operations.

In 1852, the number of mining corporations formed in California nearly doubled, to a total of fifty-three. On January 1, 1852, trustees of the Grass Valley Mining Company voted to increase the company's capital stock to \$250,000. The same day, four of these trustees joined John Collins and formed another corporation, the Manhattan Quartz Mining Company. Horace Greeley himself was listed as secretary and treasurer of the company, while Collins served as president. To attract investors, each company issued an elaborate stock prospectus. By that time, the Grass Valley Mining Company held more than four hundred mining claims, while the Manhattan held sixty-four, a significant departure from the earlier principle of one claim per miner. Each prospectus quoted from the law, from published articles, letters, and reports, and cited production figures as evidence of the soundness of their undertaking and the lucrative dividends investors could anticipate. According to the Manhattan Company prospectus, "shareholders [will] reap a golden harvest."³⁹

Investors contributed millions to California mining operations between 1850 and 1853. Increasingly, investors from afar—Sacramento, San Francisco, New York City, Boston, and abroad—purchased stock in California's mines. Foreign corporations were also formed to undertake mining operations in California. British investors, for example, sank nearly \$10 million into shares of California mining corporations, and, by 1853, British promoters organized thirty-two corporations in London to mine for gold in California.⁴⁰

Though dozens of California and foreign corporations successfully attracted investment capital, developing efficient ore-processing methods and machinery proved to be a more intractable problem. At the same time, lawsuits also consumed a significant proportion of the gold produced. Few of these early corporations paid out even a single dollar in dividends, provoking widespread disillusionment and an almost immediate reaction: the collapse of outside investment in California mining in 1853. Thereafter, through the end of the decade, California mining corporations had trouble raising investment capital.

Nonetheless, California miners continued to form corporations and to invest their own capital in mining operations, frequently buying out earlier works and attempting to run them more efficiently. The end of California's first wave of corporate mining speculation was not the end of mining corporations, by any means. As Table 3.1 shows clearly, the number of mining corporations grew throughout the 1850s, accounting for fully three-quarters of California's corporations formed during the decade. The growth of corporate mining meant fundamental changes in the gold fields that did not escape notice of the press. On June 11, 1858, Sacramento's *Daily Union* described this transformation as a "complete revolution" in "the methods and means applied to mining," leading to the concentration of mine ownership among "men of means who have employed others to mine for them."

Despite widespread company failures and continued uncertainty about the in-

dustry, the boom of 1851 through 1853 illustrated an important business principle: incorporation was a means for channeling investment dollars into mining company operations. In that sense, these corporations served as a force for stability and a catalyst for growth for mining and its subsidiary industries, particularly in the long run. In the short run, however, they proved destabilizing, funneling money into ill-conceived ventures and diverting funds from more productive uses.

For the remainder of the decade, outside investors shunned California mining corporations. Meanwhile, gold production fell steadily from its peak in 1852 at \$81 million to \$46.8 million in 1859. The California economy languished at the end of the decade, seemingly awaiting the next big strike that would stimulate manufacturing and boost commerce. Suddenly it happened: in 1860, a wave of new mine incorporations propelled rapid expansion of the California economy.

ORGANIZING A CORPORATE ECONOMY

The restructuring of mining that began during the early 1850s was completed with the rise of corporate mining on what came to be known as the Comstock Lode in Nevada (then part of Utah Territory) during the 1860s. Miners who crossed the Sierra from California had prospected the area for nearly a decade, barely eking out a living. Then, in June 1859, a party of prospectors discovered a rich ore deposit containing gold and silver.⁴¹ Quickly forming a company, the partners worked their claim. News spread fast, and miners from throughout the West, especially Californians, swarmed to the Comstock. Problems emerged quickly. The mining codes adopted on the Comstock, modeled after California's, ensured that conflicts would develop over claim boundaries and guaranteed that lawsuits would follow. This was hardly surprising in an area that stretched less than three miles, where nearly seventeen thousand claims were quickly recorded.⁴² A lively trade in mining claims developed immediately. In his detailed study of the Comstock Lode for the U.S. Geological Survey, Eliot Lord noted that "without and within doors a fever of speculations raged without check. Sales of claims for money were comparatively rare, but barterers were incessant. . . . Paper fortunes were made in days."⁴³

The original claimholders, lacking both the knowledge and the capital to develop large-scale quartz mining operations, sold out. The buyers included some familiar names: Judge James Walsh, Joseph Woodworth, and George Hearst, all from Nevada County, California.⁴⁴ After forming a partnership, the Ophir Mining Company, they undertook the first systematic mining operations on the lode. Before long, they sent a shipment of ore to San Francisco for assay. On November 16, 1859, the San Francisco *Alta California* reported that the ore revealed an estimated \$1,595 in gold and \$4,791 in silver per ton, fabulously valuable by California standards. And California standards prevailed on the Comstock. Initial ore assays helped cre-

ite the impression that the Comstock mines would prove rich beyond belief and produce for centuries, similar to the fabled mines of Mexico, Bolivia, and Peru.

As California miners and financiers bought up Comstock properties and established corporations, speculation in mining claims quickly gave way to speculation in mining stock. On April 28, 1860, Hearst and his partners incorporated their mine in California to create the Ophir Silver Mining Company. With \$5.04 million in capital stock, the Ophir was the largest corporation in the West. Others quickly followed suit. By the end of 1860, thirty-seven additional Comstock mines were incorporated in California, which triggered a wave of incorporations never before seen in this country. More than one thousand mining companies were incorporated in California that year.⁴⁵

All this activity attracted intense interest, as more and more people hoped to make money in mining stock. While some hoped for more reliable financial reporting, most appeared more interested in the speculative prospects of mining securities.⁴⁶ The increase in transactions and opportunities for the collection of brokerage commissions led to the formation of the San Francisco Mining Stock and Exchange Board on September 1, 1862. Although founders of this exchange were branded in the press as the 'Forty Thieves,' the organization prospered. By 1864, six new mining stock exchanges were formed in San Francisco, and nine in the vicinity of the Comstock Lode, along with exchanges in Sacramento, Stockton, and Marysville.⁴⁷ Meanwhile, the number of mining corporations skyrocketed; 2,933 were formed in 1863 alone, 84 percent of them gold and silver mines.⁴⁸ California banking historian Ira Cross concluded that 'especially during 1863 did it become the normal, expected thing for any party possessing a small mining claim to organize a corporation of large proportions and to sell the stock at astounding prices to a gullible and speculative public.'⁴⁹ Securities of the Comstock corporations dominated the market. Strangely enough, stock speculation increased, due largely to the production of a single mine, the Gould & Curry.⁵⁰ Few of the other mines produced profits or paid dividends. Yet, as miners on the Comstock Lode wrestled with technical problems of extracting and processing the complex amalgam of gold and silver found there, financiers and promoters developed sophisticated new methods of organizing companies and manipulating stock transactions. By comparison, California mines continued to have difficulty attracting investments.⁵¹ California's gold mines were much smaller operations. They required far less operating capital than the gold and silver mines on the Comstock Lode and offered fewer opportunities for speculation on the stock market. As Table 3.2 shows, California gold production continued to decline into the 1860s, after which it remained relatively steady, between \$15 and \$24 million through 1878. While gold and silver on the Comstock Lode did not exceed California's gold output until 1873, the annual transactions on the San Francisco Mining Stock and Exchange Board alone exceeded \$100 million a year between 1871 and 1877.

TABLE 3.2

Annual Mining Production in California and Nevada, along with Total Sales of Securities at the San Francisco Mining Stock and Exchange Board, 1863-1877 (in millions of dollars)

Year	California Gold ^a	Comstock Gold & Silver ^b	SFMSEB Mining Stock Transactions ^c
1863	23.5	12.4	15.5
1864	24.1	16.0	25.8
1865	17.9	16.0	49.2
1866	17.1	12.0	32.8
1867	18.3	13.7	66.3
1868	17.6	12.4	115.9
1869	18.2	7.5	69.1
1870	17.5	8.0	51.2
1871	17.5	10.2	127.9
1872	15.5	12.2	189.2
1873	15.0	21.7	146.4
1874	17.3	22.5	260.5
1875	16.9	25.8	220.2
1876	15.6	31.6	225.8
1877	16.5	36.3	119.7
1878	18.8	19.6	n.a.

a. SOURCE: William B. Clark, *Gold Districts of California* (Sacramento: California Division of Mines and Geology, 1963), 4. Numbers are rounded to the nearest hundred-thousand.

b. SOURCES: Eliot Lord, *Comstock Mines and Miners* (Washington, D.C.: U.S. Geological Survey, 1883), and Grant H. Smith, "The History of the Comstock Lode, 1850-1920," *University of Nevada Bulletin* 37 (July 1943).

c. SFMSEB refers to the San Francisco Mining Stock and Exchange Board. SOURCE: Assembly Committee on Corporations, "Majority Report," in California Legislature, *Appendix to the Journals of the Senate and Assembly*, vol. 4 (Sacramento: State Printing Office, 1878), 3-11. These numbers reflect sales only at the SFMSEB and so understate the total amount of mining stock transactions by an estimated 40 percent, according to the committee's report, which ended with the 1877 figures.

Following the practices adopted a decade earlier, corporate promoters on the Comstock Lode issued elaborate prospectuses that they distributed far and wide. They also enlisted the press in campaigns to sell stock to the public, and with huge success. For the first time in the history of the United States, stock market participants represented a broad cross-section of social classes.⁵² San Francisco's *Mining and Scientific Press* observed that it was the rare person who did not own at least a share or two of mining stock.⁵³ According to the publication, "the market extends everywhere; the buyers and sellers of stock include the millionaire and the mendicant, the modest matron and the brazen courtesan, the prudent man of business and the gambler, the maidservant and her mistress, the banker and his customer."⁵⁴

As had been the case a decade earlier, close ties developed between banks and mining corporations. Banks managed mining corporation accounts, arranged payrolls, made short-term loans, lent money for the purchase of mining stock, and accepted mining stock as collateral on loans.⁵⁵ When production dropped at the Comstock mines, San Francisco banker William C. Ralston and his agent, William Sharon, stepped in to take control. Indeed, close relations between the leading bank on the West Coast, San Francisco's Bank of California, and the Comstock mining corporations lent an air of respectability to mining stock transactions. At the same time, it gave Sharon and Ralston direct access to financial information on local businesses, which they used to advance their own interests.

Enacting a liberal lending policy, Ralston and Sharon lent money to independent mills, but then starved them of ore to process. Without income from ore processing, mills were unable to repay their loans, and Ralston and Sharon gained control over most mills in the area, which they then consolidated as a single corporation, the Union Mill and Mining Company. They held onto these shares, rather than distributing them through the stock market.⁵⁶ At the same time, they extended their control over both mines and mine suppliers, which continued to operate as formally distinct corporations.⁵⁷ Relying on advance knowledge about progress in the mines, Ralston, Sharon, and their allies, known as the "Bank Crowd," fed rumors to the press and timed assessment calls and stock sales to drive prices up or down according to their plans. According to early historian John S. Hittell, "every trick that cunning could devise to make the many pay the expenses, securing to the few the bulk of the profit, was practiced on an extensive scale."⁵⁸

This broad control, even backed by the financial power of the Bank of California, could not guarantee perpetually growing production at the Comstock mines, however. Nor did it prevent the rise of rival groups to challenge the control wielded by Ralston and his allies. Twice during the 1870s, successful campaigns were waged through the stock market to wrest control of particular mines.⁵⁹ Alvinza Hayward and John P. Jones broke away from the Bank Crowd and gained control of the Crown Point and Savage mines. At about the same time, four Irish immigrants soon known



Mount Davidson, on the far western reaches of Nevada, looms above a miner at the lower dump of the Gould & Curry Mine in 1865. Although the Comstock Lode entered into decline that year, its fortunes would revive in the early 1870s, when the Silver Kings struck the "Big Bonanza," the massive veins of silver and gold buried deep beneath the windswept heights of Mount Davidson. Financed in large by California capital, the mines not only produced enormous quantities of high-grade ore but sparked volatile trading in silver stocks on the San Francisco exchanges. *Courtesy Huntington Library, San Marino, Calif.*

as the "Bonanza Firm"—John W. Mackay, James G. Fair, James C. Flood, and William S. O'Brien—formed a formal partnership and pooled their money for stock operations. The resulting growth in stock transactions fueled the formation of a new wave of mining corporations.⁶⁰ By 1873, they controlled five mining companies: Hale & Norcross, Gould & Curry, Consolidated Virginia, California, and Kentuck.⁶¹ The rival campaigns waged through the stock market produced a staggering volume of transactions, peaking in 1874 at more than \$260 million, more than ten times the total production of gold and silver from the Comstock that year. Before the

ght to control the Comstock was over, Ralston was ruined. Though Sharon and the Bank of California survived, the activities of the Bonanza Firm exacted a heavy toll on the broader economy.

Following the pattern adopted by the Bank Crowd, the Bonanza Firm not only purchased all major suppliers to their mines, they also established an "independent" mill, the Pacific Mill and Mining Company, a corporation that they wholly owned. Such arrangements were so common that, in a trial closely watched throughout the mining West, the Bonanza Firm successfully countered shareholders' complaints of fraud by pleading that the practice represented industry custom.⁶²

By the end of the 1870s, the era of the fabulous Comstock was nearly at its end. The mines had been gutted. In 1877, even as the Bonanza Firm's mines produced millions in gold and silver, the mining stock market collapsed, and California's economy sank into depression. The California Assembly Committee on Corporations concluded:

Where there should be universal prosperity and happiness, there is widespread poverty and suffering. Thousands of comfortable homes and many millions of dollars earned by the patient toil of the industrious masses, have been swept away by disastrous investments in mining shares. Undoubtedly the stock market has been a chief factor in producing the present destitution of the people. Its baneful effects have been felt in every neighborhood and almost every family in the State.⁶³

CONCLUSION

Much of the scholarship on the rise of corporations during the nineteenth century has focused on elements of internal organization and competition within free and unregulated market arenas. Organizations are treated as distinct entities, independent from one another and dependent for survival on the efficient use of market resources.⁶⁴ My research into the rise of mining corporations and their interrelations across markets presents a very different view.

As mining corporations proliferated in California during the early 1850s, a new pattern of economic power emerged. Direct individual control over investment capital was displaced by indirect control and the loss of decision-making power, as the power of corporate insiders expanded. During the 1860s, the sudden wave of mining incorporations stimulated by the development of the Comstock Lode created the opportunity for insiders to manipulate information, along with legal and financial resources. In effect, these powerful actors used mining corporations as tools to advance their own plans and fortunes to the detriment of the underlying economy.

As mining advanced east and north from California, miners carried with them the techniques, practices, ideas, and organizing strategies—as well as the problems—

that emerged during the Gold Rush and were institutionalized during the era of the Comstock Lode in the 1860s and 1870s. Mining, which continues to be a risky undertaking, still carries the burden of its speculative past.

NOTES

1. Marian V. Sears, *Mining Stock Exchanges, 1860-1930* (Missoula: University of Montana Press, 1973).
2. See for example, Hubert Howe Bancroft, *History of California*, vol. 6 (San Francisco: The History Company, 1888), 120; see also 120-21, n. 16, and 144, n. 1.
3. Such sources are discussed in Maureen A. Jung, "Documenting Nineteenth-Century Quartz Mining in Northern California," *American Archivist* 53 (Summer 1990): 406-18.
4. Maureen A. Jung, "The Comstocks and the California Mining Economy, 1848-1900" (Ph.D. diss., Department of Sociology, University of California, Santa Barbara, 1988).
5. See for example, Joseph S. Davis, *Essays in the Earlier History of American Corporations* (Cambridge: Harvard University Press, 1917), and Oscar Handlin and Mary Handlin, "Origins of the American Business Corporation," *Journal of Economic History* 5 (May 1945): 1-23.
6. Clark C. Spence, *The Sinews of American Capitalism: An Economic History* (New York: Hill and Wang, 1964), 134. See also Lawrence M. Friedman, *A History of American Law* (New York: Simon & Schuster, 1985), 177-201, 511-31.
7. Alfred D. Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press, 1977), 36.
8. Shaw Livermore, *Early American Land Companies: Their Influence on Corporate Development* (New York: Octagon Books, 1966), 296.
9. Friedman, *A History of American Law*, 190-91.
10. Gerald D. Nash, "Government and Business Relations: A Case Study in State Regulation of Corporate Securities," *Business History Review* 38 (Summer 1964): 141-62.
11. Spence, *Sinews of American Capitalism*, 134.
12. William C. Kessler, "Incorporation in New England: A Statistical Study, 1800-1875," *Journal of Economic History* 8 (May 1948): 47. The six states include Massachusetts, Connecticut, Rhode Island, New Hampshire, Maine, and Vermont.
13. *New York Herald*, January 24, 1849.
14. *Ibid.*, January 29, 1849.
15. Recorded by Perseverance Mining Company member Samuel Upham in his *Notes on a Voyage to California Via Cape Horn, Together with Scenes in El Dorado in the Years 1849-50* (Philadelphia: Samuel Upham, 1878), 105.
16. On the joint-stock companies, see Octavius T. Howe, *The Argonauts of '49* (Cambridge: Harvard University Press, 1923); R. W. G. Vail, *Bibliographical Notes on Certain Eastern Mining Companies of the California Gold Rush, 1849-1850* (Princeton: Bibliographical Society of America, 1949).
17. Joseph W. Ellison, "The Mineral Land Question in California, 1848-1866," *Southwestern Historical Quarterly* 30 (July 1926): 9-15. See also John Walton Caughey, *The California Gold Rush* (Berkeley: University of California Press, 1975), 229-31.

18. Charles H. Shinn, *Mining Camps: A Study in American Frontier Government* (1884; New York: Knopf, 1948), 224.
19. Upham, *Notes on a Voyage*, 307.
20. Theodore H. Hittell, *History of California*, vol. 3 (San Francisco: Stone and Company, 1879), 174.
21. Howard L. Scamehorn, ed., *The Buckeye Rovers in the Gold Rush* (Athens: Ohio University Press, 1965), 116.
22. Josiah Royce, *California, from the Conquest in 1846 to the Second Vigilance Committee in San Francisco: A Study of American Character* (1886; New York: Knopf, 1948), 217.
23. J. D. Borthwick, *Three Years in California* (New York: The Book League of America, 1929), 347.
24. These estimates of miners' wages are developed in Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (Cambridge: Harvard University Press, 1947), 120. Bancroft's estimates are quite similar, though slightly lower for 1852; *History of California*, vol. 1, n. 5, p. 639.
25. Paul, *California Gold*, 121.
26. Scamehorn, *Buckeye Rovers*, 133-34.
27. For detailed description from a careful observer and mining company president, see Daniel B. Woods, *Sixteen Months at the Gold Diggings* (New York: Arno Press, 1973). On pp. 44-48, he presents articles of agreement for the Hart's Bar Draining and Mining Company, organized in May 1851 as a joint-stock company, and notes that such "mining associations enjoy all the privileges and immunities of corporate bodies."
28. Felix P. Wierzbicki, *California as It Is & as It May Be, Or a Guide to the Gold Region*, ed. George D. Lyman (1849; reprint, San Francisco: Rare Americana Series, 1933), 34. This was the first book written in English published in California.
29. Edwin F. Bean, comp., *History and Directory of Nevada County* (Nevada City: Daily Gazetteer Book and Job Office, 1867), 149.
30. Records of Incorporation, vols. A and B, 1850-1859, California State Archives, Sacramento.
31. *Ibid.*, vol. A, 1.
32. *Ibid.*, vol. A, 2.
33. Bancroft, *History of California*, 666.
34. It was common practice for a banker to serve as a mining corporation's treasurer.
35. *California Express*, November 12, 1851.
36. Grass Valley Gold Mining Company, *Charter* (New York: Printing Office, 1852).
37. John Cumming, ed., *The Gold Rush Letters of Dr. James Delavan from California to the Adrian, Michigan, Expositor, 1850-1856* (Mount Pleasant, Mich.: Cumming Press, 1976), viii.
38. Delavan's book, published by H. Long and Brother, was advertised in the New York *Tribune* on March 1, 1850, its author identified only as "One Who Knows." See also Carl I. Wheat, "The Rocky-Bar Mining Company: An Episode in Early Western Promotion and Finance," *California Historical Society Quarterly* 12 (March 1933): 65-77. Appended to this article is a complete copy of the 1850 stock "Circular" Delavan wrote to promote the Rocky-Bar Mining Company.
39. Manhattan Quartz Mining Company, *Facts Concerning Quartz and Quartz Mining: Together with the Charter* (New York: W. L. Burroughs, 1852), 24.

40. Leland Hamilton Jenks, *The Migration of British Capital to 1875* (New York: Knopf, 1927), 46.

41. The story of the Comstock Lode is told by many. See, for example, Eliot Lord, *Comstock Mines and Miners* (Washington, D.C.: U.S. Geological Survey, 1883); Grant H. Smith, "History of the Comstock Lode, 1850-1920," *University of Nevada Bulletin* 37 (July 1943); Charles Howard Shinn, *The Story of the Mine as Illustrated by the Great Comstock Lode of Nevada* (Reno: University of Nevada Press, 1980); and George D. Lyman, *Ralston's Ring* (New York: Charles Scribner's Sons, 1937) and also his *The Saga of the Comstock Lode: Boom Days in Virginia City* (New York: Charles Scribner's Sons, 1934).

42. Smith points out that 20 percent of the production on the Comstock Lode through 1866 was spent in litigation; "History of the Comstock Lode," 61.

43. Lord, *Comstock Mines*, 73.

44. Smith, "History of the Comstock Lode," 16.

45. Ira B. Cross, *Financing an Empire: A History of Banking in California* (San Francisco: S. J. Clarke, 1927), 238.

46. John Wallin Carlson, "History of the San Francisco Mining Exchange" (M.A. thesis, Department of Economics, University of California, Berkeley, 1941), 6. See also Clyde Garfield Chenoweth, "The San Francisco Stock Exchange and Its History" (Ph.D. diss., Department of Economics, Stanford, 1941). For the recollections of a stock exchange member, see Joseph L. King, *History of the San Francisco Stock and Exchange Board* (San Francisco: Joseph L. King, 1910).

47. Sears, *Mining Stock Exchanges*, 10.

48. *San Francisco Mining and Scientific Press*, January 30, 1864, 74.

49. Cross, *Financing an Empire*, 238.

50. John S. Hittell, *A History of the City of San Francisco and Incidentally of California* (San Francisco: A. L. Bancroft, 1878), 340.

51. *Ibid.*, 333.

52. Shinn, *Story of the Mine*, 144-45.

53. February 16, 1863.

54. Quoted in Shinn, *Story of the Mine*, 145.

55. Cross, *Financing an Empire*, 398; Cecil Gage Tilton, *William Chapman Ralston, Courageous Builder* (Boston: Christopher Publishing House, 1935), 135; Paul, *California Gold*, 185-86.

56. Lord, *Comstock Mines*, 246-47; Shinn, *Story of the Mine*, 164-65; Smith, "History of the Comstock Lode," 49-51, 180-81. Although Smith states that both Ralston and Sharon remained in the background while others served on corporate boards and carried out their bidding, an examination of articles of incorporation and annual reports from the companies reveals that Ralston served as treasurer of the Gould & Curry Silver Mining Company in 1860, 1861, and from 1865 to 1872. During the same period, he was also treasurer of the Ophir and Savage mines. In 1869, Sharon was treasurer of the Belcher mine; he also served as a trustee of the Consolidated Imperial Silver Mining Company from 1868 to 1872, while the Bank of California was listed as its treasurer. While complete lists of corporate officers for all the Comstock mines no longer exist, those that remain show that both men occupied key positions within these corporations.

57. Smith, "History of the Comstock Lode," 50-51.

58. Hittell, *History of the City of San Francisco*, 343.

59. See for example, Oscar Lewis, *Silver Kings: The Lives and Times of Markay, Fair, Flood, and O'Brien, Lords of the Nevada Comstock Lode* (Reno: University of Nevada Press, 1986).

60. The San Francisco *Bulletin* noted on May 7, 1872, that "the excitement in mining stocks and mining claims during the past few months has been without a precedent in the history of our mines. Mining incorporations have been multiplied like the leaves of autumn. . . . Yet it is noteworthy that out of 150 claims offered to the public through the stock boards, only four are paying dividends."

61. Lord, *Comstock Mines*, chaps. 14, 15; Smith, "History of the Comstock Lode," chaps. 11, 13, 14; Lyman, *Ralston's Ring*, chap. 22; and Lewis, *Silver Kings*.

62. Lewis, *Silver Kings*, 247-48; Lord, *Comstock Mines*, 330. See also Squire P. Dewey, "The Bonanza Mines of Nevada: Gross Frauds in Management Exposed," pamphlet reprinted in *Speculation in Gold and Silver Mining Stocks* (1879; reprint, New York: Arno Press, 1970), 61.

63. Assembly Committee on Corporations, "Majority Report," in California Legislature, *Appendix to the Journals of the Senate and Assembly*, vol. 4 (Sacramento: State Printing Office, 1878), 8.

64. See for example, Chandler, *The Visible Hand*.

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"We all live more like brutes than humans"

Labor and Capital in the Gold Rush

Daniel Cornford

DEMYTHOLOGIZING GOLD-RUSH LABOR

Few events in the history of the United States have been as glamorized by historians as the California Gold Rush. From the late nineteenth century to the present, most historians have portrayed it as both a heroic and dramatic epic and as a giant step toward the fulfillment of the nation's Manifest Destiny that presaged the full-fledged exploration and development of the Far West.

Even Carey McWilliams, hardly an ardent nationalist and indeed a man who devoted much of his scholarship to exposing the darker side of California's history, subscribed to much of the historical drama and mythology associated with the Gold Rush. Writing fifty years ago, he described the event "as one of the most extraordinary mass movements of population in the history of the western world." McWilliams argued that it was not simply the scale of the California Gold Rush that made it unique. It was "the first, and to date [1949] the last, poor man's Gold Rush in history." Influenced particularly by the anecdotes of men making fortunes in the early years, McWilliams described the Gold Rush as "the great adventure for the common man" and wrote of "this exceptional mining frontier [that] made for a real equality of fortune." He was not referring simply to the early years, however. McWilliams maintained that in California "unlike in other western mining states, the free miner remained, at least until 1873 or later, the foundation of the whole system." According to McWilliams, the placer mining of this period exemplified "democracy in production."¹

The fact that even Carey McWilliams wrote about the Gold Rush and the Argonauts' experience in such neo-Turnerian language is testimony to the power of myth to influence historians' judgment. Traditional accounts have treated the Argonauts rather narrowly as adventurers who either failed or succeeded at the diggings; important aspects of the miners' larger social and labor history were thus overlooked



Hard work and perseverance bring success to a gold hunter in an illustration to *The Idle and Industrious Miner*, a moralistic poem attributed to William Bausman. Published in Sacramento in 1854, with wood engravings after designs by Charles Nahl, the allegorical tale contrasts the disparate rewards attending vice and virtue. Despite the vivid imagery of author and illustrator, good fortune in the diggings sprang more from good luck than from good work habits. "Gold mining," as the witty Dame Shirley wrote her sister, "is Nature's great lottery scheme." *California Historical Society, FN-30967.*

or treated in an incidental fashion. This is particularly true of the period from the mid-1850s to the 1870s, when gold mining was still important to the California economy but the rush years were over. With a few exceptions, not until relatively recently have historians of the Gold Rush begun to separate myth from reality in their work on the social history of the era.² Because California and western historians

were captivated by the myth and drama of the period, they were tempted to rely on the abundance of excellent anecdotal sources: diaries, memoirs, and letters, in particular, and, to an extent, newspaper accounts.³ They used these sources at the expense of examining more objective statistical evidence to be gleaned from such sources as, among others, manuscript census data, passenger ship records, and reports and data generated by governmental agencies.

As Malcolm Rohrbough observes,⁴ Rodman Paul's *California Gold* (1947) was the first "modern" study of the California Gold Rush in that it made extensive use of quantitative sources as well as the more traditional ones.⁵ While not totally neglecting social and labor history, Paul's work focused primarily on the business and technological history of California gold mining. The advent of the new social history during the 1960s eventually spawned a greater interest in the social history of California and the American West by a new generation of historians making much greater use of more objective statistical sources than their predecessors. Despite a few excellent works, however, we still lack a sufficient body of work on the social history of the Gold Rush to fill many of the gaps in our knowledge, and to definitively affirm, modify, or rebut some of the conclusions of the traditional accounts.

Notwithstanding these limitations, this essay examines the history of miners and their work during the gold-rush era (1848–1870), gleaning information from both old and new research on the subject. It explores questions central to understanding the labor history of this period: What impelled the mass migration of 300,000 people to California between 1848 and the mid-1850s? What were the living and working conditions of the miners? How and why did the Gold Rush generate episodes of nativism and racism that presaged and bedeviled the history of the Golden State far into the twentieth century? In particular, this essay explores how, between 1848 and 1870, the Argonauts were transformed from individual prospectors seeking (and sometimes obtaining) nuggets of gold from superficial placers into wage laborers employed by heavily capitalized hydraulic and quartz mining concerns in working conditions very much akin to those experienced by eastern workers in mid-nineteenth-century American factories. Rodman Paul noted this development in his seminal work fifty years ago, but several more recent studies of mining and miners in the American West, and, most notably, Ralph Mann's detailed study of Nevada City and Grass Valley during the gold-rush era, have significantly enhanced our knowledge.⁶

The proletarianization of the California mining labor force reflected a steady decline in the fortunes of most miners and large disparities in wealth and earnings between miners, merchants, and professional people in emergent towns such as Grass Valley and Nevada City. By the late 1860s, the result was growing social tensions between labor and capital. Influenced to a significant degree by the success of the Comstock Lode mining unions a few years earlier, miners conducted the first ma-



Nevada City in 1852, a rough, raw mining town built on the banks of Deer Creek, where gold was found in the autumn of 1849. The rich placer deposits sparked a tremendous rush, and soon the surrounding hills were covered with tents, brush shanties, and rude cabins. By late 1850 the population had reached six thousand. That year several prospectors wrested a four-hundred-pound lump of gold from the earth, but within the decade, miners were laborers and wage earners, working for others rather than for themselves. *Courtesy California State Library.*

for strikes in the California mining industry. They also founded the Golden State's first mining unions and resisted many of the concessions demanded by a new class of mining entrepreneurs.

WHY THEY WENT

While mythology and hyperbole surround the California Gold Rush, it would be no exaggeration to say that it was one of the largest *occupational* migrations of labor in American history. The number of people engaged in mining skyrocketed from 4,000 in 1848 to about 100,000 by 1852 and stayed at that number until the late 1850s. An

even better indication of the importance of mining is obtained by calculating the proportion of the work force engaged in mining. In 1850, almost 75 percent of all employed men in California (57,797 of 77,631) were miners.⁸ As late as 1860, when mining had declined in importance in absolute and relative economic terms, the federal census data reveals that miners still made up 38 percent of the California work force (82,573 of 219,192).⁹

Historians have yet to explain convincingly why some people succumbed to the lure of gold and others did not. Undoubtedly, people with some previous experience of mining were eager to employ their skills in California. They included base-metal miners from the British Isles, especially Cornwall, and men from the gold and silver regions of such countries as Mexico, Chile, and Peru, as well as some who had participated in the earlier gold rushes in North Carolina and Georgia and the lead mining boom in the upper Mississippi Valley.¹⁰ But these miners made up a relatively small fraction of the migrants.

Insofar as generalizations can be made about the forces that propelled this mass migration, historians have pointed to improvements in transportation, the expansion of global trade networks in the mid-nineteenth century, and the emergence of a "mass" press in many countries that was only too eager to stir up gold fever. For example, news of the Gold Rush reached Cornwall before it arrived in northern Michigan.¹¹ Historians have also argued that the discovery of gold in California coincided with the continuing decline of agriculture in many parts of the northeastern United States, and that other workers were increasingly faced with the prospect of working for a subsistence existence in the burgeoning factories and workshops of America's major cities. Whether they were struggling to maintain a farm or working a twelve-hour day for not much more than a dollar a day in a textile or shoe factory, some found the lure of gold irresistible.¹²

Other historians, such as David Goodman, have maintained that the wide acceptance of ideas associated with a pervasive *laissez-faire* political ideology in the mid-nineteenth century played an important role. Moreover, according to Goodman, an emergent "equalitarian republicanism" reconciled an ideology of self-aggrandizement with the growing imperial aspirations of the nation. In short, the ideology of *laissez-faire* legitimated, even encouraged, the single-minded pursuit of wealth at all costs and thus made many people susceptible to gold fever.¹³ It is, however, dangerous to explain the exodus to California in mechanistic terms of the stages of American (or world) economic development and associated ideologies.¹⁴ As one of the leading historians of the California Gold Rush has observed with reference to an earlier era of American history, "the agrarian frontiers shared with the mining frontiers a persistent American restlessness, an equally pervasive addiction to speculation and a desire to exploit virgin natural resources under conditions of maximum freedom."¹⁵

In all likelihood a person's propensity to emigrate to California had as much to do with mundane practicalities as it did with the forces of national or world economic development. Proximity to ports and sources of transportation in general was almost certainly a significant factor. As important was the ability of the prospective Argonaut to raise sufficient capital to make the journey and to become established in the diggings. In 1848 and 1849 the cost of the ocean voyage from the East Coast via either Cape Horn or the Isthmus of Panama ranged from \$300 to \$1,000. Overland travel required approximately \$300.¹⁶ Although the journey could be completed for \$300, this was a significant, even prohibitive, sum for many farmers and workers in the East whose annual income rarely exceeded this amount. Even if pooling capital in joint-stock companies and borrowing money from family networks helped offset financial obstacles to migration,¹⁷ probably only a small portion of ordinary workers and farmers caught in an emergent industrial revolution could avail themselves of the opportunity of joining the Gold Rush. Few of those who came were among the abject poor.

There is, of course, less uncertainty about the motivation of the Argonauts. Although, as David Goodman has pointed out, people like Henry David Thoreau and more traditional elements of society, such as the church, had some grave reservations about such single-minded pursuit of wealth and its consequences, these people were in a minority.¹⁸ As Ralph Mann succinctly put it, "the California Gold Rush was not an aberration in nineteenth century American history, nor were the Forty-Niners alienated from the values of their time."¹⁹ The Gold Rush promised "opportunities and experiences approved by their society—even identified by it as uniquely American."²⁰ In the words of another historian, the event represented "an image of instant success available through hard work; an affirmation of democratic beliefs under which the wealth would be available to all."²¹ To those who felt guilt at leaving their families or had some reservations about the pursuit of wealth for its own sake, qualms could be allayed by the ethnocentric belief that they were also serving the higher purpose of fulfilling the nation's Manifest Destiny. In an address to the Society of California Pioneers in 1860, Edmund Randolph was enraptured at the thought of

California in full possession of the white man, and embraced within the mighty area of his civilization! . . . We see in our great movements hitherward in 1849 a likeness to the times when our ancestors . . . poured forth by nations and in never-ending columns from the German forests, and went to seek new pastures and to found a new kingdom in the ruined provinces of the Roman Empire.²²

While the pursuit of wealth was undoubtedly the migrants' predominant motivation, one of the great paradoxes of the Gold Rush is that the attainment of this end required almost unprecedented levels of cooperation between strangers, such as

the formation of joint-stock companies for the journey and similar ventures at the diggings to build dams, sluices, tunnels, and the like. But the longer-term impact of this spirit of cooperation should not be exaggerated. One miner put it this way: "The people have been to each other strangers in a strange land. Absorbed in this eager pursuit of wealth, they have not taken time for the cultivation of those affinities which bind man by a higher and holier tie than mere interest."²³ He stressed that the expectation of most miners that their visit to California would be a temporary one resulted in an "almost total lack of social organization."²⁴ Under these circumstances, it is hardly surprising that, even as independent miners were reduced to the status of modestly paid wage laborers employed by hydraulic and quartz mining companies, collective activity in the form of strikes or unions was late in arriving in the California mining industry.

DIFFERENT LABOR SYSTEMS, DIVERSE GOLD SEEKERS

Not all miners, even in the early phase of the Gold Rush, were freewheeling independent entrepreneurs. As Susan Johnson has put it, "work in the diggings proceeded according to a dizzying array of systems that included independent prospecting and mining partnerships as well as altered Miwok gathering practices, Latin American peonage, North American slavery, and, later, Chinese indentured labor."²⁵ In the case of African Americans, a significant number of free blacks joined the Gold Rush. Some were seamen deserting vessels arriving from New England ports, while others made their way to California as employees or servants of overland, joint-stock companies. But just as commonly, African Americans arrived in California as slaves to their gold-seeking masters. Rudolph Lapp estimates that 962, or approximately 50 percent of the African Americans in California in 1850, were slaves.²⁶

We will never know precisely how many of the at least 15,000 Mexicans (10,000 from the province of Sonora alone) came as unfree laborers sponsored by *patrones*. Leonard Pitt asserts that "the north Mexican patrons themselves encouraged the migration of peons by sponsoring expeditions of twenty or thirty underlings at a time, giving them full upkeep in return for half of their gold findings in California."²⁷ The *patrón* system was also responsible for bringing a certain (unknown) proportion of miners to the diggings from Chile and Peru.

The Chinese did not arrive at the diggings quite as early as the Mexicans and South Americans. In 1850 there were only 500 Chinese miners in California, and 1,000 Chinese people in the entire United States.²⁸ However, in 1852 alone, 20,000 Chinese people entered California, most of them en route to the mining counties. By one contemporary estimate there were 20,000 Chinese miners in California by 1855.²⁹ Many of the first Chinese migrants were merchants able to pay their way from China. Others were not so fortunate. Most of the Chinese who emigrated to the United



American and Chinese miners work a claim at the head of Auburn Ravine with a line of sluice boxes in 1852. Woods Dry Diggings, as Auburn was originally named, was one of the earliest mining camps in California, established in May 1848 when Claude Chana and a party of Indians discovered gold in the ravine. Chinese merchants contributed to the growth of the town, and several of their old wooden shops, dating to the year of this daguerreotype, still stand on Sacramento Street. *Courtesy California State Library.*

States did not experience the exploitation of the notorious "coolie" system, which bound workers to sign contracts agreeing to work in a foreign land for a specified time in return for their passage. Instead, most Chinese workers paid for their passage by what Sucheng Chan calls the "credit-ticket system," whereby Chinese middlemen paid the passage of emigrants in advance. In return, the emigrants contracted to pay their debts after arrival, with the prospect that the emigrants could keep their earnings after debts were paid.³⁰ While more research is needed to determine more precisely what proportion of Chinese emigrants arrived under the credit-ticket system, historian Elmer Sandmeyer asserts with confidence that "the evidence is conclusive that by far the majority of Chinese who came to California had their transportation provided by others and bound themselves to make repayment."³¹ Indeed, the consensus of other historians is that the labor of indebted passengers was sold through Chinese subcontractors to Chinese mining companies, although some describe the labor system and working conditions of these Chinese as akin to debt peonage.³²

In part, as Leonard Pitt has argued, the "free labor" preferences of white Americans contributed to the xenophobia and racism that most foreign miners (as well, of course, as Native Americans and Californios) encountered.³³ But there were other reasons why white American-born miners often had no compunction about expelling foreign miners, especially racial minorities, from the diggings and from mining towns. First, the American miners, conscious of the fact that access to gold was limited, resented the fact that the mining experience of peoples from Mexico, Chile, and Peru often made them more successful prospectors. Second, the belief in Manifest Destiny, reinfused by the United States's victory in the Mexican-American War, led many Americans to presume that they had priority at the diggings. Third, even while hostility and violence were also directed at white foreign nationals such as the French and Australians, the depths of racist ideology cannot be overemphasized. Indeed, as more and more historians have demonstrated, racist ideology was a crucial building-block in the making of white working-class consciousness.³⁴ Finally, as wage labor became more and more common in the mines, the disillusioned American Argonauts resented the competition of cheaper "foreign" labor. This contributed to the expulsion of many Native Americans in the early gold-rush years and was a source of tension between white and Chinese miners throughout the 1850s, 1860s, and 1870s.³⁵

In general, minorities suffered most from extra-legal forms of violence, but in the early 1850s white miners had the political clout to impose "legal" forms of discrimination on their rivals. This came in the form of two foreign miners' tax measures that were passed by the state legislature. The first, enacted in 1850, required miners who were not citizens of the United States to pay a licensing fee of \$20 a month. Targeted particularly at Mexicans, this measure led to violence and the eventual departure of about 10,000 Mexican miners to their homeland in 1850.³⁶ The protests of many American merchants who lost customers as a result of the measure led to its repeal in 1851, but the influx of Chinese in 1852 prompted the passage of another act that provided for a tax of \$3 per month, later raised to \$4.³⁷

While not a target of foreign miners' taxes, Native Americans suffered extreme violence at the hands of Argonauts from many nations. California Indian labor played a particularly important role in the early gold-rush years. The best estimate is that by the summer of 1848 perhaps half of the 4,000 miners were Indians. Even before the Gold Rush, Anglo-Americans and other immigrants in Hispanic California were quick to imitate the Mexican system of Indian labor exploitation. A group of pioneers such as John Sutter and John Bidwell simply moved their Indian labor force from their ranchos to the mines. There were reports of individual whites employing up to one hundred Indians at the diggings.³⁸

Not all Indians worked for whites. Some were independent miners who bartered their gold dust with merchants on increasingly favorable terms as they came to ap-

preciate the value that the white man attached to it. But the Indian presence as independent and employed miners was short-lived. As Albert Hurtado and others have shown, newly arriving white miners from Oregon and other parts bitterly resented the advantage that *ranchero* employers of Indians had. Starting in 1849, and using indiscriminate and extreme violence, they drove most Indians from the mines. The 1852 state census showed that, with the exception of the southern mining counties, Indians made up a relatively small proportion of the population of the mining counties. Outside the southern mining counties, they constituted less than 10 percent of the population in every mining county but one. In these counties, probably only a small proportion of the Indians still present worked in the mines, and in most cases, historians agree, they usually worked for white miners. In the Southern Mines the Indians' numerical superiority prevented whites from driving them out during the early 1850s, but in time "attrition caused by disease, gradual displacement, and only occasional fighting would make the south a white man's country."³⁹

LIFE AND LABOR AT THE DIGGINGS

Unquestionably, the ability to employ slaves, peons, or indentured labor gave some miners an advantage. However, the circumstances of the early gold-rush years made, to some extent, for the appearance of a degree of equality, or at least equality of opportunity, among the majority of miners. In the period where superficial placer mining predominated, most miners had access to the capital necessary for such mining. Furthermore, some early mining tools, such as the cradle, which required more than one person to operate, fostered a spirit of unity and cooperation among miners. But, most importantly, success at the diggings in the early years was as much a matter of luck as anything else. As Dame Shirley succinctly put it, "gold mining is Nature's great lottery scheme."⁴⁰

The fact also that miners dressed almost identically helped blur class distinctions. "Their heavy boots, sturdy trousers, checked shirts, large belt, slouch hat, and gloves formed a uniform worn by miners up and down the Sierra that made them indistinguishable from one another," says historian Malcolm Rohrbough in his recent study.⁴¹ Moreover, he adds, the miners "wore their uniforms with pride. Their dress was a badge of members in a large fraternity and it established their status as workers."⁴² In addition, the miners' hostility to other occupational groups, such as merchants, teamsters, boardinghouse keepers, doctors, and lawyers, on whom they depended at times, reinforced the miners' identity of themselves as workers.⁴³ One observer at a boardinghouse for miners summarized the situation as follows: "The wondrous influence of gold seem to have entirely obliterated all social distinctions."⁴⁴

The sheer hard labor entailed in most forms of early placer mining also contributed to weakening class identities. Rodman Paul describes the work as "most



The Forty-niner Solomon Yeakel set out for the new El Dorado at the age of twenty-one, crossing the Plains and the Rockies to seek his fortune. Like most Argonauts, Yeakel returned home rather than settle in California. He later enlisted in the Pennsylvania Volunteers and fought at the Battle of Bull Run. *Courtesy Bancroft Library.*

early akin to ditch digging."⁴⁵ In 1848 and 1849, most independent miners worked the diggings as individuals or with their families. By 1850, as placer mining required a cradle and the building of dams and sluices, miners formed themselves into companies of four to eight men. While usually the tasks were rotated, the labor was grueling. Work was often performed in ice-cold water generated by the melting snow, even while in the sun's glare summer temperatures not uncommonly reached 100 degrees. The workday generally began at 6 A.M. There was a break around noon for a couple of hours to escape the worst of the sun and eat lunch, then work resumed until sunset. The physical exigencies of mining may be gauged from the fact that by one estimate, even in 1849 when the yields were good, miners needed to wash an average of 160 buckets a day to acquire one ounce (\$16) of gold.⁴⁶ "You can scarcely form any conception of what a dirty business this gold digging is and of the mode of life which a miner is compelled to lead," wrote one miner. "We all live more like brutes than humans."⁴⁷ The seasonal nature of the work added to the miners' sense of urgency. In the Northern Mines, work was possible most years only from July through late November. Heavy rains and snow made work impossible for the rest of the year. One option for miners was to move during winter and spring to the Southern Mines and engage in the "dry diggings." However, stresses Rodman Paul, while "the yield of the dry diggings during the winter months was often large . . . the period of effective operations was short, and the chances were extremely dependent up on the weather," especially a sufficient flow of water during the spring months.⁴⁸

The almost complete absence of women at the diggings forced men to learn a wide range of domestic skills, including sewing, washing, and, of course, food preparation. Some men had acquired these skills on the overland trail, but many had not, and not until the advent of boardinghouses and an assortment of domestic-related service industries in mining towns were the majority of miners relieved of such chores.

In 1850, less than one-tenth of the population of California was female, according to the census, and in the mining counties women made up only 3 percent of the inhabitants.⁴⁹ While they made up 30 percent of the California population by the 1860s, they continued to be as small a proportion of the population in the mining counties as they had been in 1850. Small wonder that even in established mining towns such as Grass Valley and Nevada City only one in ten men was married in 1860, and among miners only one in twenty-five was betrothed.⁵⁰

This small female population engaged in a variety of occupations. In 1848, American families and migrant families, especially from Sonora, encamped near the diggings and undoubtedly women panned for gold. However, there is little evidence that women participated in the diggings in significant numbers for very long.⁵¹ Yet the female population of the mining counties engaged in a wide range of occupations. Some women worked as prostitutes in the mining towns,⁵² while others were



Having dammed the river and turned its torrents into a flume, miners burrow deep into its bed, laboring with picks and shovels to win the riches of ancient Tertiary deposits. Beginning work at dawn, laboring six or even seven days a week, often in icy waters or under a burning sun, Argonauts occasionally lost all sense of time in an exhausting round of never-ending physical exertion. "Digging for gold," as one miner put it, "is the hardest work a man can get at." *California Historical Society, FN-04135.*

employed in the entertainment industry as dance hall girls and singers. But women also worked in many other occupations that do not fit the popular stereotypes of female employment during the Gold Rush. Ralph Mann's study of Grass Valley and Nevada City provides us with the most definitive evidence. Mann's data show that the townswomen from these two cities engaged in fifteen different occupations. In both places, two-thirds of employed women cared for boarders. Women also worked as servants, seamstresses, dressmakers, shopkeepers, cooks, bakers, washerwomen, boardinghouse operators, and by 1870 in a few cases, as schoolteachers.⁵³

There is a lack of consensus about the quality of the miners' diet. Some overlanners and miners such as William Swain ate well and found food a major compensation for their many other drudgeries.⁵⁴ While lines of supply in the early gold-rush years were not always reliable, historian Joseph Conlin asserts that "grocers reached most camps before the prostitutes did."⁵⁵ Nevertheless, in the early years the basic diet of meat, bread, or biscuits washed down with tea or coffee was not always supplemented with fresh fruit and vegetables. The very high price of food sometimes caused the miners to cut corners on their diets, and a few unfortunate ones may have starved. Rodman Paul concludes that in 1849, and for some of 1850 at least, partially

as a result of dietary deficiencies, "many suffered from diarrhea, dysentery, scurvy, and other debilitating diseases," although, he argues, the situation quickly improved during the 1850s.⁵⁶

The primitive dwellings that were hastily erected in clusters as close to the diggings as possible did not contribute to the health of miners but instead abetted the spread of disease. Some early miners built log cabins, but most lived in rudimentary canvas tents that they usually abandoned during the winter.⁵⁷ As the 1850s progressed, the situation improved, as mining towns such as Grass Valley and Nevada City sprang up with regular boardinghouse facilities. However, before 1870 a majority of miners in both places lived in cabins,⁵⁸ and in more isolated areas miners continued to occupy fairly primitive cabin dwellings until much later.⁵⁹

Accidents at the mines were commonplace from the outset, but as mining became more technologically advanced, the potential for serious accidents increased.⁶⁰ The growing use of tunneling and gunpowder, in particular, took its toll. While the issue of gunpowder contributed to the first major labor strike in the California mines, the legislature showed little interest in passing any protective legislation for miners during the nineteenth century. In this respect California was hardly atypical. In the most recent book on the history of occupational safety, Mark Aldrich, after describing a fatal mining accident in West Virginia in 1898, concluded that "most managers, and probably most Americans, if they thought about these matters at all, would have deemed such deaths individual tragedies for which the company bore little, if any, responsibility."⁶¹

By any standard, miners were highly itinerant workers. In the space of the five-month mining season, miners might explore several different claims. They might move within their mining region or between the northern and southern mining areas. They might also depart for another rush such as the Comstock rush of 1859 or the short-lived rush on the Fraser River in British Columbia in 1858. Winter forced many miners into the towns of Marysville, Sacramento, Stockton, and, of course, San Francisco, where many searched for work. But even during the mining season, poverty, disillusionment, or the need to reprovision caused miners to move back and forth between the diggings and the cities. By the early 1850s, the appearance of well-equipped stores and full-fledged mining towns in some areas eliminated some of the causes of transience.

Mann's study, however, indicates that even as mining camps evolved into well-developed towns, rates of geographical mobility remained high throughout the period between 1850 and 1870. Mann found that in both Nevada City and Grass Valley only 3 percent of the miners recorded in the 1850 census were still there in 1860.⁶² During the 1860s, the persistence rate of miners was not much higher. Only 5 percent of those appearing in the 1860 census for Nevada City could be found in the census of 1870, while the persistence rate for Grass Valley was only 6 percent.⁶³ If the communities of Grass Valley and Nevada City are taken as a whole, only one in ten of



Seated before a rude cabin roofed with canvas, a solitary Argonaut plays his flute, filling the evening air at Boston Flat with music, in a daguerreotype by H. M. Bacon. In addition to enduring hard labor and bad food, homesickness and disease, the Argonauts often spent their nights and dreary rainy days under the most miserable of conditions. "We all," as one miner wrote his sister in 1850, "live more like brutes than humans." *Courtesy Society of California Pioneers.*

the population of both towns continued their residence between 1860 and 1870. While the turnover rate in many other American towns and cities was high, especially on the frontier, Mann's comparative data indicates that the turnover of populations in Grass Valley and Nevada City was exceptionally high. Even turbulent San Francisco experienced a persistence rate of 25 percent between 1850 and 1860. Persistence rates for other studied frontier communities have varied from 25 to 60 percent over the course of a given decade.⁶⁴

Historians studying social and geographic mobility have long pondered the relationship between the two without drawing definitive conclusions about why some people settled down and others did not. High rates of geographic mobility may indicate that people were "pushed" from communities by limited opportunities for advancement. Alternatively, it may show that people were pulled away from their

ommunities by the prospect, and actuality, of greater opportunity. The higher rates of persistence of people with professional or high-paying occupations leads most historians to believe that itinerant workers were, in general, more likely to be pushed than pulled.

Perhaps this was not the case with the Argonauts, eternal optimists ready to move on to the next site on the flimsiest of rumors. Whether hopes and expectations were borne out by reality, however, is quite another question. Moreover, it must be noted, increasingly during the 1850s, the miners' status was changing from independent prospector to permanent wage laborer.

FROM ARGONAUTS TO WAGE LABORERS

The glory days of the lucky, individual Argonaut were very short-lived. By the early 1850s, even the expedient of pooling capital with fellow Argonauts barely enabled most miners to retain a vestige of their independence. Increasingly, during the 1850s, miners were forced to work as wage laborers for large corporations often employing several hundred men. Although reliable statistical data is not available, it would be safe to say that by the late 1850s, a substantial majority of miners were wage laborers. While the corporations probably employed a significant number of the early Argonauts who remained at the diggings, they also began to hire a large number of men with considerable experience in mining, especially from the British Isles. In short, in the space of a few years the noble and adventurous Argonaut had been reduced to the status of a proletarian working for wages and in conditions not much better than factory workers in the East.

Unquestionably, some miners, especially those arriving between 1848 and 1850, struck it lucky. The majority, however, did not, and "wages," defined either as earnings from the work of individual prospecting or wage labor, declined sharply from 1848 onward. Conceding the lack of totally comprehensive and reliable data, Paul estimates that the miner's "wage" declined from \$20 per day in 1848 to \$10 per day in 1850, to \$5 per day by 1853, and to \$3 per day in the late 1850s.⁶⁵ Notwithstanding the fact that the decline in wages was offset by a decline in the cost of living, it appears that the miners' real wages declined significantly between 1848 and 1860.

Mann's detailed statistical data also support such a conclusion. He found that in Grass Valley and Nevada City only one out of ten miners reported owning real estate or personal property at the time of the 1860 census. By contrast, one-half of the two towns' businessmen reported over \$1,000 in real estate and personal property.⁶⁶ Small wonder that Mann concluded that "in a disproportionate number of . . . cases the man was a propertyless miner. . . . No longer living in camps, hoping to strike it rich, they now dealt in embryonic industrial slums, hoping for a living wage. The gap between miners and the rest of society was more than spatial; they were much less

likely to own their own homes, have families, or accumulate possessions."⁶⁷ While by 1870 things had improved for a relatively small core of more skilled miners, 75 percent or more of them in both towns still reported no personal or real estate.⁶⁸

How had it come to pass that the ever-optimistic Forty-niners, hopeful of finding their fortunes, or at least enough money to buy farms back East, had been reduced to such lowly status and economic standing? By the early 1850s, external and inexorable forces were impinging on the miners' chances of succeeding as individual prospectors. After the easy pickings from the superficial placers had been exhausted, more elaborate and capital-intensive technologies had to be employed to extract gold. Initially, Argonauts were able to pool their capital and labor to acquire and use rockers and to build dams and sluices necessary to the more advanced forms of placer mining. If the miners' capital was not sufficient, local merchants often subscribed to the joint-stock companies.⁶⁹ However, during the 1850s, the scale of hydraulic mining projects increased, necessitating a growing reliance on both wage labor and external capital.

In 1853, it was reported that nearly twenty-five miles of the Yuba River had been diverted at a cost of \$3 million.⁷⁰ A single construction project could, by the mid-1850s, cost as much as \$120,000, and as many as 260 men might be employed on it.⁷¹ The scale that hydraulic mining assumed may be gauged from the following statistics. By 1857, 4,405 miles of canals, ditches, and flumes had been constructed at a cost of about \$12 million.⁷² With investments on this scale by the late 1850s, "the new owners were what contemporaries called 'capitalists,' and the operation of this process sometimes meant a transfer of control from the working men in the foothills to the business and financial men in the cities."⁷³ Or, as Ralph Mann put, it "for many men the fortunes of the mining company became the fortunes of the company that employed them."⁷⁴

Also requiring large investments of capital, and threatening the independence of miners, were the quartz mines of the early 1850s. These mines attracted a significant amount of eastern and English capital.⁷⁵ As early as 1851, there were twenty quartz mines in operation in Grass Valley and Nevada City,⁷⁶ and by 1852 Grass Valley residents claimed that the Gold Hill mine had yielded \$4 million in gold.⁷⁷ The quartz companies employed men for \$100 a month and found plenty of Argonauts willing to sacrifice their independence.⁷⁸

While the quartz mining boom of the early 1850s fell far short of investors' expectations,⁷⁹ hardrock mining became more widespread and stable during the late 1850s. In 1855 there were only thirty-two quartz mines in the state, but by 1857 there were as many as 150 and a larger number of stamp mills and *arrastras* for extracting the gold from the quartz.⁸⁰ By 1870, quartz mining accounted for 31 percent of the dollar value of all gold mined in California.⁸¹ Quartz mining became well established



A flume carries water for hydraulic mining at Smartsville, Yuba County, about 1865. Beginning with the rise of hydraulicking in the mid-1850s, an enormous water-delivery network arose in the Sierra Nevada, and by the end of the decade nearly seven thousand miles of flumes, canals, and ditches had been constructed to serve mining companies in the Golden State. *Courtesy Society of California Pioneers.*

in some towns like Grass Valley, where by the 1860s as many men were employed in quartz mining as in hydraulic mining.⁸² Mann suggests several reasons for the expansion and success of quartz mining in Nevada County. First, many entrepreneurs and miners acquired much invaluable technical knowledge from their experience of quartz mining at the Comstock Lode. Second, there was a large supply of capital from the eastern states and Europe to finance this expansion. Third, an increasing influx of skilled Cornish miners, in particular, furnished the expertise to work these mines profitably.⁸³

THE MINERS FIGHT BACK: STRIKES AND UNIONS

Not until the late 1860s, and with the ascending importance of quartz mining, did anything resembling a "labor movement" emerge in California mining. Prior to 1869, when the first union was formed and the first major labor strike occurred, strikes appear to have been sporadic.⁸⁴ Why were there so few strikes in the gold mines and why did it take over twenty years for the first labor union to appear? First, even as the days of the independent prospector came to an end and the era of wage labor began, miners continued to be itinerant. This was not conducive to strikes and certainly not to the building of unions, especially among workers, a substantial majority of whom saw their stay in California as temporary. Like many disgruntled workers in other industries with a highly mobile work force, miners tended to strike with their feet and simply move on to the next camp or mine. Second, the relative isolation of the work setting made it hard for miners to coordinate a strike effort or to build a union. Furthermore, in these isolated settings workers could not call on the support of the community, a factor that was crucial to the success of later strikes and unions. Third, deep-seated ethnic, racial, and national animosities among the diverse workers were inimical to the waging of strikes and the building of unions. Fourth, until the 1860s, absentee mine ownership was uncommon. Quite often the owner was also a manager and therefore, in the eyes of the worker, a fellow member of the "producing classes," and one who often risked considerable capital to put men to work. Finally, while a vibrant labor movement had existed at times during antebellum America (especially during the Jacksonian era), the movement was episodic and the majority of American workers had had no experience of strikes or trade unions.

It is significant that strikes and unions in California gold mines occurred after the first successful organizing wave by hardrock miners at the Comstock Lode in Nevada and that the major conflicts occurred at quartz mines employing a relatively large number of miners. Many California miners joined the Comstock rush in the early 1860s, and many returned within a few years. In some cases these returning men played a key role in sparking strikes and building unions in California. At the very least, historians are agreed that the success of the labor movement in the Comstock mines was a major influence in spurring the development of labor militancy and unionism among hardrock miners all over the American West.⁸⁵

Experienced Cornish workers played a particularly important role in the development of western mining and also in the building of a labor movement. By the third quarter of the nineteenth century, immigrants from the British Isles comprised approximately half the work force in many of the hardrock mining centers of the West, such as Grass Valley.⁸⁶ They were roughly evenly divided between Irishmen and non-Irishmen, most of whom were from Cornwall. The Cornish miners

had been encouraged to emigrate because of the serious decline of the centuries-old regional tin industry. Sometimes they emigrated to other regions of the United States to mine coal or other ores before coming to California; sometimes they migrated directly.

Exceptionally clannish, the Cornish had a fierce pride in their long-standing craft traditions and skills. Indeed, no group of miners was more prized for their skill by mining employers than were the Cornish in the latter half of the nineteenth century. It was in some ways ironic that the Cornish should be thrust into the vanguard of the union movement among miners in the West. The Cornish did not bring with them any traditions of trade unionism from the British Isles, but rather a tradition of fierce individualism. What thrust the Cornishmen into the forefront of the western mining labor movement was the fact that soon after their arrival new mining technologies began to threaten their craft traditions and workplace prerogatives.

The cause of the first major strike in the California gold mines, which occurred in Grass Valley in 1869, is illustrative.⁸⁷ A series of issues, including Sinophobia, demands for higher wages, and the objection of Cornish miners, in particular, to the use of dynamite and new drilling practices, precipitated the strike. By 1870, three-quarters of all adult men in Grass Valley were foreign born, and slightly over half of these were British, most Cornish.⁸⁸ The Cornish miners were accustomed to working in pairs as "double-handed" drillers. One would wield the hammer while the other held and twisted the drill bit. By the 1860s, some employers saw this as a wasteful use of labor and advocated single-handed drilling. Employers also began to insist that miners use dynamite, or "giant powder," as it was called, instead of the less powerful and volatile "black powder." The Cornish miners insisted that this new gunpowder produced noxious fumes and refused to use it. The situation was further complicated and inflamed by mining employers' threats to hire Chinese workers as single-handed miners using the new explosives. All this occurred in the context of a situation where quartz miners' wages had been reduced to three dollars per day or less, and in which mine owners were trying to crack down on the practice of high-grading. High-grading was the name given to the miners' habit of privately helping themselves to promising lumps of quartz, apparently a common practice before the 1860s.

The catalyst for this first strike was the decision of one mine in Grass Valley to change over exclusively to the use of dynamite and to allow only single-handed drilling. In April 1869, other mining employers followed suit, and soon several hundred miners went on strike in protest. The miners decided to form a "branch league" of the Comstock unions and asked the Nevada miners to send them an organizer. The striking miners resolved not to use the new powder or allow single-handed drilling, and they pledged that no one would work underground for less than three dollars per day. The employers attempted to hire scabs, but with very little success.

Faced with the solidarity of the miners, who had much community support, most mine owners accepted the union's terms by July, and within a few months the union boasted seven hundred members.⁸⁹

Further conflict between labor and capital was not long in spreading. The quartz mines of Amador County were one locus of discontent.⁹⁰ Again many issues were involved in the dispute, but when one company cut wages to two dollars a day, the "Amador War," as it became known throughout the state, was on. The miners formed themselves into the Amador County Laborers' Association, which soon claimed four hundred members. Like the miners of Grass Valley, the Amador men were determined not only to improve their wages, but also to exclude, as far as possible, the employment of Chinese in the mines.

By 1871, as the strike dragged on, the Amador War had become a state issue. The attempt of California governor Henry Haight to use the state militia to break the strike was almost comically inept and ineffective. With the exception of negotiating a daily minimum wage of three dollars for surface and mill workers, the union eventually won all its demands.⁹¹

Several other major mining strikes occurred in the early 1870s. While California gold miners' opposition to giant powder weakened, as it did everywhere, the labor movement in the California mines was, like the Comstock unions, effective not in bringing about great improvements in miners' conditions, but at least in holding back employers' attempts to further erode the miners' working conditions and prerogatives during the late 1860s and 1870s. Richard Lingenfelter attributes their success to the "internal solidarity of the unions and their strong support within the community," as well as to the fact that a significant group of miners now felt a sense of permanence in their communities.⁹²

Little study has been devoted to California gold miners after the 1870s that might reveal whether their unions retained power. It seems likely, however, that the gradual decline of the California gold industry eroded the strength of the miners' position. In the early years of the twentieth century, miners in most western states obtained the eight-hour work day, but not in California. Mark Wyman quotes the president of the Tuolumne Miners' Union, who in 1900 said that, as far as miners were concerned, California "was the poorest organized state in the West."⁹³ He added that miners had not won employer agreement to limitations of the workday or bans on compulsory hospital fees. Finally, in 1909, the state passed an eight-hour-day law for miners.⁹⁴

It seems likely that the decline in California gold mining weakened the hand of the miners in the last quarter of the nineteenth century. Miners simply no longer had the numbers to intimidate scabs and the state militia, or to influence the state legislature in the way that miners were able to do in many other western hardrock states. Instead, if we are to believe Rodman Paul, many California gold miners, both

quartz and hydraulic ones, eked out an existence during the late nineteenth century in rather isolated company towns where their power was limited.⁸ Whatever the case, Paul's judgment is sound when he asserts that "within the short span of twenty-five years California mining had passed through a cycle that commenced with what economists call 'home crafts' and ended with what socialists term 'proletarian industry.'"⁹

NOTES

I would like to thank Jeffrey Stine for his helpful comments on an earlier draft of this article.

1. Carey McWilliams, *California: The Great Exception* (New York: Current Books, 1949), 26-29.

2. The best, and most recent, overview of the historiography on the California Gold Rush is in Malcolm J. Rohrbough, *Days of Gold: The California Gold Rush and the American Nation* (Berkeley: University of California Press, 1997), 295-300.

3. For a good assessment of these traditional sources on the history of the Gold Rush, see *ibid.*, 300-304.

4. *Ibid.*, 298.

5. Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (Cambridge, Mass.: Harvard University Press, 1947).

6. Ralph Mann, *After the Gold Rush: Society in Grass Valley and Nevada City, California, 1849-1870* (Stanford: Stanford University Press, 1982). Also offering new insights into the California Gold Rush is the recently published book by Walter T. Durham, *Volunteer Forty-Niners: Tennesseans and the California Gold Rush* (Nashville: Vanderbilt University Press, 1997).

7. Paul, *California Gold*, 43, and Rodman W. Paul, *Mining Frontiers of the Far West, 1848-1880* (New York: Holt, Rinehart and Winston, 1963), 16.

8. U.S. Bureau of the Census, *Seventh Census of the United States, 1850*, vol. 1, p. 976. Unfortunately, and partly because of the upheaval caused by the Gold Rush, the 1850 census is not fully reliable. For a discussion of this problem, see Paul, *California Gold*, 23-25. Likewise, the California state census of 1852 is flawed in some respects. See Dennis E. Harris, "The California Census of 1852: A Note of Caution and Encouragement," *Pacific Historian* 28 (Summer 1984): 59-64.

9. U.S. Bureau of the Census, *Eighth Census of the United States, 1860*, vol. 1, p. 35. Unlike in 1850, the table of occupations did not confine itself to enumerating only employed men, but, as will be shown later in this essay, few women were miners.

10. While the southern gold rushes of the earlier nineteenth century paled by contrast to the California Gold Rush, comparisons between the two are interesting and instructive, and there is a growing historical literature on the southern gold rush. See Otis E. Young, "The Southern Gold Rush, 1828-1836," *The Journal of Southern History* 48 (August 1982): 373-92. See also David Williams, *The Georgia Gold Rush: Twenty-Niners, Cherokees, and Gold Fever* (Columbia: University of South Carolina Press, 1993). This book contains a useful bibliography. On gold rush migrants from Chile and Peru, see Jay Monaghan, *Chile, Peru, and the California Gold Rush of 1849* (Berkeley: University of California Press, 1973). The gold-rush emigration and experience of people from the Mexican province of Sonora is discussed in

M. Colette Standart, "The Sonoran Migration to California, 1848-1856: A Study in Prejudice," *Southern California Historical Quarterly* 58 (Fall 1976): 333-57. On emigration from Cornwall and the Cornish in America, see John Rowe, *The Hard-Rock Men: Cornish Immigrants and the North American Mining Frontier* (Liverpool: University of Liverpool Press, 1974).

11. Rowe, *The Hard-Rock Miners*, 96.

12. See David Douglas Clinton, "Laboring for the Golden Dream: Labor in Gold Rush San Francisco" (Ph.D. diss., University of California, Santa Barbara, 1991), 73-74, 180-81. For data on wage comparisons, see U.S. Department of Labor, *History of Wages in the United States from Colonial Times to 1928* (Washington, D.C.: Government Printing Office, 1934). See also Rohrbough, *Days of Gold*, 2-3.

13. David Goodman, *Gold Seeking: Victoria and California in the 1850s* (Stanford: Stanford University Press, 1994).

14. See Susan Lee Johnson, "'The Gold She Gathered': Difference, Domination, and California's Southern Mines, 1848-1853" (Ph.D. diss., Yale University, 1993); see chap. 2 for analysis of the factors spurring emigration from both within and without the United States. She cautions historians (p. 100) not to be too deterministic about the factors that in particular impelled migration from the eastern United States.

15. Paul, *Mining Frontiers of the Far West*, 41.

16. Estimates of the cost of the journey vary considerably. In part this reflects inadequate data, and also the fact that the cost of passage varied enormously according to the date and circumstances of travel. In addition, it is not always clear whether estimates included food for the passage and the cost of capital equipment and other supplies necessary for mining. In general, the costs of the voyage by sea declined after 1848-49.

17. On forming joint-stock companies and using families' funds to finance the migration, see Rohrbough, *Days of Gold*, 39-45. For a detailed discussion of the formation of joint-stock companies to finance the voyage by sea, see James P. Delgado, *To California By Sea: A Maritime History of the California Gold Rush* (Columbia: University of South Carolina Press, 1990).

18. Goodman, *Gold Seeking*.

19. Mann, *After the Gold Rush*, 1.

20. Ibid.

21. Rohrbough, *Days of Gold*, 2.

22. Quoted in Goodman, *Gold Seeking*, 28.

23. Quoted in J. S. Holliday, *The World Rushed In: The California Gold Rush Experience* (New York: Simon & Schuster, 1981), 370.

24. Ibid.

25. Johnson, "The Gold She Gathered," 292. The historical literature has not examined this issue in very great detail and we shall probably never know what proportion came to the diggings as unfree laborers of some kind. The sporadic evidence would seem to indicate that a relatively small number were unfree laborers. If, however, one includes wage laborers in one's definition of "unfree," the proportion becomes somewhat larger.

26. Rudolph M. Lapp, *Afro-Americans in California* (San Francisco: Boyd and Fraser, 1987), 4-6. See also Rudolph M. Lapp, *Blacks in Gold Rush California* (New Haven: Yale University Press, 1977).

27. Leonard Pitt, *The Decline of the Californios: A Social History of the Spanish-Speaking*

Californians, 1840-1890 (Berkeley: University of California Press, 1970), 54; Tomas Almaguer, *Racial Fault Lines: The Historic Origins of White Supremacy in California* (Berkeley: University of California Press, 1994), 69. On the bringing of unfree labor from Latin America to the Gold Rush, see Monaghan, *Chile, Peru and the California Gold Rush*, 53, 61, 109, 127, 131.

28. Ping Chiu, *Chinese Labor in California: A Economic Study* (Madison: State Historical Society of Wisconsin, 1967), 12. On the forces that impelled Chinese emigration to the United States there are many works, but see Sucheng Chan, *This Bittersweet Soil: The Chinese in California Agriculture, 1860-1910* (Berkeley: University of California Press, 1986); June Mei, "Socioeconomic Origins of Emigration: Guangdong to California, 1850-1882," in *Labor Immigration Under Capitalism: Asian Workers in the United States Before World War II*, ed. Lucie Cheng and Edna Bonacich (Berkeley: University of California Press, 1984); and Yong Chen, "The Internal Origins of Chinese Emigration to California Reconsidered," *Western Historical Quarterly* 28 (Winter 1997): 521-46.

29. Paul, *California Gold*, 43.

30. See Chan, *This Bittersweet Soil*, 21. Chan defines emigrants who obtained passage to the United States via the credit-ticket system as "semifree."

31. Elmer Sandmeyer, "The Bases of Anti-Chinese Sentiment," in *Racism in California*, ed. Roger Daniels and Spencer C. Olin, Jr. (New York: Macmillan, 1972), 80.

32. David V. DuFault, "The Chinese in the Mining Camps of California: 1848-1870," *Southern California Quarterly* 41 (Summer 1959): 155-70. James J. Rawls and Walton Bean, *California: An Interpretive History* (New York: McGraw Hill, 1993), 126.

33. Pitt, *Decline of the Californios*, 56.

34. This argument was made powerfully and convincingly in Alexander Saxton's book, *The Indispensable Enemy: Labor and the Anti-Chinese Movement* (Berkeley: University of California Press, 1971). It was a position adopted by many subsequent California historians, especially of the labor movement. More recent work views racism and the development of a white working-class consciousness as by no means exclusively a California phenomenon. To cite but two of the works: David R. Roediger, *The Wages of Whiteness: Race and the Making of the American Working Class* (London: Verso, 1991), and Alexander Saxton, *The Rise and Fall of the White Republic: Class Politics and Mass Culture in Nineteenth Century America* (London: Verso, 1990).

35. We still lack a definitive explanation of why Chinese miners were expelled from some communities but not others. In some towns the expulsion took place in the early 1850s, but in others attempts were not made until the 1870s. On the persistence and role of the Chinese in California and western mining see Randall E. Rohe, "After the Gold Rush: Chinese Mining in the Far West, 1850-1890," *Montana: The Magazine of Western History* 32 (Summer 1982): 2-19, and also his "Chinese River Mining in the West," *Montana: The Magazine of Western History* 46 (Autumn 1996): 14-29. On strong anti-Chinese sentiment in California mining communities during the 1870s, see Richard E. Lingentfelter, *The Hardrock Miners: A History of the Mining Labor Movement in the American West, 1863-1893* (Berkeley: University of California Press, 1974), and Mann, *After the Gold Rush*.

36. See Richard Henry Morefield, "Mexicans in the California Mines, 1848-53," *Southern California Quarterly* 35 (March 1956): 37-46. Also very useful on nativism and racism in the Southern Mines is Johnson, "The Gold She Gathered."

37. On the first foreign miners' tax, see Richard H. Peterson, "The Foreign Miners' Tax of 1850 and Mexicans in California: Exploitation or Expulsion?" *Pacific Historian* 20 (Summer 1976): 265-71.

38. On Native Americans in the Gold Rush, see James J. Rawls, "Gold Diggers: Indian Miners in the California Gold Rush," *California Historical Quarterly* 55 (Spring 1976): 28-42; Albert L. Hurtado, *Indian Survival on the California Frontier* (New Haven: Yale University Press, 1988); and George Harwood Phillips, *Indians and Indian Agents: The Origins of the Reservation System in California, 1849-1852* (Norman: University of Oklahoma Press, 1997), esp. chap. 3.

39. Hurtado, *Indian Survival*, 117. For a breakdown of the Indian population by mining county in 1852, see 111.

40. Louise A. K. S. Clappe, *The Shirley Letters: Being Letters Written in 1851-1852 from the California Mines* (Salt Lake City: Peregrine Smith, 1970), 123.

41. Rohrbough, *Days of Gold*, 152.

42. Ibid.

43. Ibid.

44. Quoted in *ibid.*, 19.

45. Paul, *Mining Frontiers of the Far West*, 26.

46. For descriptions of hard labor in the mines see Paul, *California Gold*, 56; Paul, *Mining Frontiers of the Far West*, 26; Rohrbough, *Days of Gold*, 137-39; and Holliday, *The World Rushed In*, 395-97.

47. Quoted in Holliday, *The World Rushed In*, 360.

48. Paul, *California Gold*, 113-14.

49. Rohrbough, *Days of Gold*, 94.

50. Mann, *After the Gold Rush*, 98.

51. See Rohrbough, *Days of Gold*, 9, 180-81. In her book *A Mine of Her Own: Women Prospectors in the American West, 1850-1950* (Lincoln: University of Nebraska Press, 1997), Sally Zanjani searches out examples of women miners but with a notable lack of success in California. Using manuscript census data, Ralph Mann found that in 1860 only one woman in Grass Valley and one in Nevada City described her occupation as "miner," and none did in 1870; *After the Gold Rush*, 244. One of the more recent works on women in the Gold Rush, with a useful bibliography, is JoAnn Levy, *They Saw the Elephant: Women in the California Gold Rush* (Norman: Oklahoma University Press, 1992).

52. Sucheng Chan argues, on the basis of good evidence, that a substantial majority of Chinese women in rural northern counties in 1860 and 1870 were prostitutes; *This Bittersweet Soil*, 389.

53. Mann, *After the Gold Rush*, 108-15, 244.

54. William Swain is the principle subject and writer in Holliday's *The World Rushed In*.

55. Joseph R. Conlin, *Bacon, Beans, and Galantines: Food and Foodways on the Western Mining Frontier* (Las Vegas: University of Nevada Press, 1986), 107. This book contains much information about diet and eating in gold-rush California and on the western mining frontier in general.

56. Paul, *California Gold*, 87. See also Rohrbough, *Days of Gold*, 142-44.

57. Paul, *California Gold*, 72-75, and Mann, *After The Gold Rush*, 15-17.

58. Mann, *After the Gold Rush*, 240. It is possible, however, that residents of boarding-houses were more likely to be undercounted by the census enumerator.

59. Paul, *California Gold*, 317-18.

60. A point stressed by Rohrbough, *Days of Gold*, 182-83, and Mann, *After the Gold Rush*, 191-92.

61. Mark Aldrich, *Safety First: Technology, Labor, and Business in the Building of American Work Safety, 1870-1939* (Baltimore: Johns Hopkins University Press, 1997), 2. See also Alan Derickson, *Workers' Health, Workers' Democracy: The Western Miners' Struggle, 1891-1925* (Ithaca: Cornell University Press, 1988). Not until long after the gold-rush era (1848-1870) did the state and federal government begin to compile records of accidents in the mining industry and other occupations.

62. Mann, *After the Gold Rush*, 227.

63. *Ibid.*, 262.

64. See *ibid.*, 212, 266.

65. Paul, *California Gold*, 120.

66. Mann, *After the Gold Rush*, 84-85. The unequal distribution of wealth was not unique to mining towns or counties. In his study of wealth distribution in twenty-six northern California counties, Robert Burchell found some variation but, in general, a very skewed distribution of wealth. Robert A. Burchell, "Opportunity and the Frontier: Wealth-Holding in Twenty-Six Northern California Counties, 1848-1880," *Western Historical Quarterly* 18 (April 1987): 177-96.

67. Mann, *After the Gold Rush*, 106.

68. *Ibid.*, 230.

69. Paul, *California Gold*, 60-64.

70. *Ibid.*, 127.

71. *Ibid.*, 129.

72. *Ibid.*, 164.

73. *Ibid.*, 166.

74. Mann, *After the Gold Rush*, 29.

75. San Francisco capital seems to have been slow and reluctant to invest in the California gold mines until at least the late 1860s. For a discussion of this, see Paul, *California Gold*, 296-302.

76. Rohrbough, *Days of Gold*, 201.

77. Mann, *After the Gold Rush*, 26.

78. Rohrbough, *Days of Gold*, 202.

79. Paul, *California Gold*, 145.

80. *Ibid.*, 143-44.

81. Calculated from the U.S. Bureau of the Census, *Ninth Census of the United States, 1870*, vol. 3, *Statistics of the Wealth and Industry of the United States*, 760. The usually reliable Rodman Paul deprecates the importance of quartz mining in the 1860s and uncharacteristically does not provide good supporting evidence.

82. Paul, *California Gold*, 260.

83. Mann, *After the Gold Rush*, 139-50.

84. References in the secondary literature are very rare. Mann mentions only one instance of a strike in Grass Valley or Nevada City; *After the Gold Rush*, 91. It is, of course, possible that many small strikes were not recorded, or if recorded in such places as newspapers, have not been gleaned by researchers. In his book *California Gold*, Paul claims (p. 324) that in the latter half of the 1850s "there had been many so-called 'strikes.'" But he provides no evidence or citations to support this assertion.

85. Lingenfelter, *The Hardrock Miners*; Mark Wyman, *Hard Rock Epic: Western Miners and the Industrial Revolution, 1800-1910* (Berkeley: University of California Press, 1979); and

Ronald C. Brown, *Hard-Rock Miners: The Intermountain West, 1860-1920* (College Station: Texas A&M University Press, 1979).

86. Mann, *After the Gold Rush*, 86.

87. Lingenfelter provides a good account of this strike and several other subsequent ones in his book *The Hardrock Miners* (pp. 81-103). Mann, *After the Gold Rush* (pp. 183-94) also provides an account of the strike. Mann states that while the strike began in Nevada City "both the strike and the Sinophobia centered in Grass Valley" (p. 183).

88. Mann, *After the Gold Rush*, 142.

89. Lingenfelter, *Hardrock Miners*, 88.

90. See *ibid.* for a good account. Paul, *California Gold*, also provides useful narratives of some of the major strikes of this period (pp. 325-33).

91. Lingenfelter, *Hardrock Miners*, 100.

92. *Ibid.*, 103.

93. Wyman, *Hard Rock Epic*, 224.

94. *Ibid.*, 224-25.

95. Paul, *Mining Frontiers of the Far West*, 92.

96. Paul, *California Gold*, 333.

5

Environmental Changes before and after the Gold Rush

Raymond F. Dasmann

The celebration of the Gold Rush has been an occasion for fun and games for many Californians—dressing up in pioneer costumes, marching in or cheering for parades, consuming alcohol, and other diversions. There is a nostalgia for an earlier time, one seemingly without the pressure of laws, rules, or community restrictions, when one could do as one pleased and, if lucky, suddenly become wealthy. Indeed, those who flocked to the gold fields were often betting their lives on “getting rich quick,” and it is not surprising that a gambling hall was one of the first structures to be built in the new gold towns, usually in combination with a saloon and brothel.

In reading the accounts of those who were there in 1849 and later, most often one seeks in vain for descriptions of the countryside, the natural world, or the wild animal life. There was no obvious concern for the environment. Anything that stood in the way of the gold seeker was pushed aside or destroyed, whether a grizzly bear or a mountain. Ruthless exploitation with no thought for tomorrow was the basis for the way of life in gold-rush times.

The start of the Gold Rush was obviously related to the 1848 discovery of gold in the gravels of the American River near Sutter's Fort in what is now the Sacramento metropolitan area. The heavy influx of people began in 1849, but when did it end? In terms of population movement, it has really never ended, since the tens of thousands who came in 1849 hardly compare to the half-million or more who arrived in each of some recent years. In terms of environmental damage, it has not ended at all.

It is tempting to blame the Gold Rush for starting the process of severe environmental damage in California, in what had previously been a place where nature thrived, little disturbed by humans. Unfortunately this simplistic view would not be correct. California in 1849 had already experienced serious environmental changes resulting from human activity. Extensive open-range livestock grazing introduced by



Powerful jets of water play across a scene of astounding environmental destruction at the Malakoff Diggings, Nevada County, in a picture by the famed California photographer Carleton Watkins. The big hydraulic-mining monitors began their work here in September 1870 with water carried by a system of ditches and flumes stretching forty-seven miles into the mountains and constructed at a cost of three-quarters of a million dollars. By the time operations ceased in the 1880s, the North Bloomfield Gravel Mining Company had carved out a canyon more than a mile long and six hundred feet deep in places. *Courtesy California State Library.*

Spaniards and Mexicans had resulted in modification of native grasslands, from a long-established and highly productive perennial bunchgrass community to one dominated by introduced (exotic) annual grasses of Mediterranean origin. Russian, Aleut, and American poachers had also hunted populations of sea otters and other marine mammals to near extinction. One could say there had been a cattle rush starting in the late eighteenth century with the coming of Spanish settlers and a fur rush starting in the late eighteenth and early nineteenth century, well before the more well-known Gold Rush. Certainly the Gold Rush directly caused even more severe damage to streams, rivers, their watersheds, and flood plains, and undoubtedly it accelerated the damage to grasslands, wildlife, forests, and other natural communities. But the damaging processes were already in place and those states that experienced no Gold Rush, such as Oregon, were to experience similar changes, although at a slower rate.

Still there is little doubt that, in terms of natural balances, California before the

Gold Rush was a more idyllic place than it was to be after that event. Perhaps the greatest indicator of the health of the environment was the abundance and diversity of wildlife, since wild animals do not thrive without a healthy habitat. The habitat for California wildlife was all of the forests and woodlands, prairies and marshlands, mountains and valleys, and rivers and seashores of the state.

WILDLIFE CHANGES

In the pyramid of life that comprised the natural world of California there is little doubt that the large predators were at the top. For them to thrive, there must be an abundance of prey, and for these to thrive, there must be an abundance of the plant foods that sustain them. Thus if you see an area where the predators seem fat and happy, you can suspect that all is well with the total environment. In California when the Spanish settlers first arrived in 1769, there was certainly an abundance of what was then the top predator on land, the grizzly bear.

It would be wrong to say that the grizzly was a bad-tempered animal. At times it could be quite cheerful and content in its bearish way. But it was easily and unpredictably offended. Then, it would fly into a rage and might tear the offender apart. The Indians had deep respect for the large bears and usually managed to coexist with them peacefully. So, too, did James "Grizzly" Adams, a colorful and loquacious gold-rush era hunter who roamed the wild country of California with his two tamed grizzlies, raised from cubs and taught to tolerate humans. His accounts, although not always trustworthy, confirm the relative abundance of bears throughout California. Adams also reported on the presence of true wolves, along with the ever-abundant coyote. On one occasion he encountered a female jaguar, with a cub, in the Tehachapi Mountains.¹

All early accounts of conditions in California before European hunting began to seriously impinge on the wildlife and wild country indicate that California Indians and wild animals lived in relative harmony. It was not that Indians did not hunt. They did, and indeed depended on deer, elk, pronghorn, and other species for part of their food supply. But they did not kill for profit and had deep respect for the animals on which they depended. In consequence, animals that are now wild and wary, such as mountain lions and black bears, were then relatively tame and not quick to flee from human presence. A view of this relationship was provided by pioneer Hale Tharp, as told by Walter Fry and Toby Whyte:

There were about 2,000 Indians then living along the Kaweah River above where Lemon Cove now stands. . . . The Indians told me that I was the first white man that had ever come to their country. Few of them had ever seen a white man prior to my arrival.



The famed hunter James Capen Adams and his pet grizzly Ben Franklin, as portrayed by Charles Nahl. Few Californians maintained Adams's complex and imaginative relationship with bears, preferring simply to slaughter them for food or sport. "The California Grizzly," remarked a writer for *Hutchings' California Magazine* in 1858, "is exceedingly ferocious, and powerful; and unless treated to a deadly bullet, it is a hard customer to manage in an encounter." From Theodore H. Hittell, *The Adventures of James Capen Adams, Mountaineer and Grizzly Bear Hunter of California* (1860). *California Historical Society, FN-30962.*

There was an abundance of game. Deer were everywhere, with lots of bear along the rivers, and occasionally a grizzly bear. Lions, wolves, and foxes were plentiful.

During the summer of 1858, accompanied by two Indians, I made my first trip into the Giant Forest. When we arrived at Log Meadow there were a great many deer and a few bear in the meadow, and the animals paid little attention to us. The deer came around our camp, and some of the bears sat upright in order to get a good look at us. I shot a small buck for camp meat. The shot did not seem to frighten the other deer or any of the bears.²

More striking was the testimony of a Chumash elder, Grandfather Semu Huaute, who refers to a wilderness north of Santa Barbara: "You know, daughter, before the Spaniards came to California, the bears and us used to gather berries together. The bears were real friendly. We got along real well. We could talk to each other, and we had a good understanding. When the Spaniards came, they found it pretty easy to shoot the bears. After that the bears wouldn't go berrying with us any more."

The Spaniards hunted bears and, although the grizzly population increased greatly in the countryside because of the new food supply—Spanish cattle—they succeeded in controlling the bears' numbers somewhat around the missions and pueblos. But it was the dispersion of people into the wild country in the gold-rush days, first as prospectors, then as miners, finally as settlers, that led to the massive depletion of wildlife. Of course the grizzly, who challenged people and often attacked, was one of the first to go. One indicative example was Humboldt County, where, according to the settlers, grizzlies were obnoxiously abundant. Early pioneer Calvin Kinman had counted forty grizzlies from one high hill in the Mattole country, but probably the last bear to live in the region was killed in 1868. In Santa Cruz County, grizzlies were also common until 1886, when the last one was reported dead. In the Sierra, they lasted longer, but the last grizzly seen, but not killed, was in Sequoia National Park in 1925.⁴

The fate of the grizzly and other animals illustrates the Gold Rush's adverse effects on the land animals of California and their habitats. However, offshore the same depletion and near extermination of marine mammals occurred. There, the decimation began even before the advent of mining, without the influence of tens of thousands of gold seekers. Two aquatic animals—the sea otter and the beaver—were the targets of the fur rush beginning more than a century before the Gold Rush. The sea otter was abundant along the California coast, particularly around San Francisco and Monterey bays and the Channel Islands. Perhaps 300,000 or more swam in the offshore waters. Unfortunately for the otters, they had a dense, warm brown coat with a silvered frosting of guard hairs. This came to be regarded as highly desirable among fur wearers in Moscow, Peking (Beijing), and elsewhere among the world's elite.

The trouble started in 1740, when the Russian government sent Vitus Bering to explore the northern Pacific toward Alaska. In the Aleutian Islands, the native Aleuts brought him large numbers of otter skins, which on the return of his expedition proved to be highly popular in Russia and China, and by the late 1700s, Russian ships were hunting the animal along the California coast.⁵ The Spanish exploitation of sea otters, probably using Chumash hunters, began before 1785, when the first government regulations on the trade were issued. Between 1786 and 1790 alone, nearly 10,000 skins were exported from Mexico to Asia via the Manila galleons. The Russians, partly to improve their access to the fur trade, established bases at Fort Ross in 1812 and in the Farallon Islands, from which they went forth with their Aleut hunters to kill sea otters. One hunting party in San Francisco Bay in 1811 massacred 1,200 otters. The French also played a minor role; in 1786 the expedition of Jean-François de Galaup, Comte de La Pérouse obtained 1,000 skins, which they sold in China for \$10,000. The price went up from \$10 to \$60 a skin by the 1790s. Americans became involved in the early 1800s and were still active by gold-rush times. The best known American hunter, George Nidever, was particularly busy in the Channel Islands and offshore in Baja California from 1834 to 1855.⁶ By gold-rush times the otters were becoming scarce, and prospecting held a greater allure for the hunters. Nevertheless, the otter population had been reduced to perhaps thirty-two survivors by the time it was given full protection in 1911.

It was not only sea otters that suffered from this marine carnage. The Alaska fur seal was greatly reduced; and the Guadalupe fur seal was pushed to near extinction and, along with the elephant seal, survived only on Guadalupe Island in Baja California. As I wrote in an earlier work,

Few people realize even today, with the current interest in whales, how many kinds of sea mammals occur in California waters. There are twenty-six species of cetaceans, the whales and dolphins, seven species of seals and sea lions, and one sea-going otter. . . . Just as great herds of elk and antelope [pronghorn] moved across the plains of the Central Valley, in pre-European days, so also did great herds of sea mammals travel above the plains of the continental shelf, moving up the slopes of the islands and occasionally down into the depths of the submarine canyons. The abundance and variety of these sea mammals were greater than those of their terrestrial counterparts.⁷

The marine mammals under greatest hunting pressure were those that came upon the shore to rest or breed, but even the truly marine species did not escape. By the early 1800s, whaling ships from New England were in California waters chasing after right whales and sperm whales. Shore-based whaling started in 1851 and concentrated on gray and humpback whales. But all of the great whales were under attack, and with most, numbers were quickly reduced to the point of endangering the survival of the species.

The mammal that contributed more than its share to the fur rush was not a marine or coastal-waters species but an inhabitant of fresh water—the golden beaver. This large rodent reached its greatest abundance, not in the forests of the Sierra or the coast, but in the Central Valley and particularly the marshlands where the Sacramento and San Joaquin rivers came together to flow into the San Francisco Bay. Unlike its relatives of the Great Lakes forests and Rocky Mountains, the golden beaver did not usually build large dams or lodges that protruded above the water surfaces. Usually, beaver dens were dug into the river banks and the entrances were below the water line. Since beaver are mostly active at night, an abundance of beaver in a river may not be noticeable.

Beaver trappers reached California in 1826, when a party led by Peter Skene Ogden of the Hudson's Bay Company came south from Fort Vancouver in Canada in the same year that the American trappers Jedediah Smith and James O. Pattie led parties from their bases near the Great Salt Lake and Santa Fe. Skene and Smith were particularly successful and took thousands of beaver between 1826 and 1828. They were to be followed by enough others to greatly reduce beaver numbers before the Gold Rush, when most hunters gave up trapping in the search for what was hoped to be an easier source of wealth, but eventually other fur bearers suffered the beaver's fate. According to Joseph Grinnell and his coauthors, "After the first period of rapid depletion, the second half of the nineteenth century brought an extension of trapping to the remaining and less conspicuous fur bearers in California. Thus the exhaustion of this resource [beaver] was extended to include nearly all the kinds of fur animals."⁸

The grasslands and marshlands of California were home to abundant tule elk when the first Europeans arrived. Dale McCullough of the University of California, Berkeley, has done the most complete study of these animals and has estimated their aboriginal numbers at 500,000.⁹ Richard Henry Dana in his *Two Years Before the Mast* described "hundreds and hundreds" of these animals on the Marin headlands, which he watched when his sailing ship anchored in San Francisco Bay in 1835.¹⁰ Missionary-explorer Pedro Font noted the abundance of elk in the San Francisco peninsula and east bay in 1775 and 1776.¹¹ Early American settler William Heath Davis reported seeing as many as three thousand elk "that swam from Mare Island to Vallejo and back," and John Bidwell wrote of elk "by the thousand" in the Napa and Santa Clara valleys in 1841.¹² It was the tule marshes and grasslands of the Central Valley, however, that supported the greatest numbers of elk, and it was there that they made their last stand.

The Gold Rush touched off the slaughter of elk because of the demand for meat in the burgeoning mining camps, towns, and cities, coupled with a shortage of beef or mutton. For a time, market-hunting of elk, deer, and pronghorn, along with waterfowl and other game, became a lucrative livelihood for those who preferred shoot-



Egg pickers gather the harvest on one of the Farallon Islands, some thirty miles off the Golden Gate, in 1880. The wild rush west of thousands of gold seekers created an enormous demand in California not only for game, but also for fish and fowl and eggs. Between 1850 and 1856 the Farallone Egg Company alone brought over three million eggs—chiefly those of the common murre—to the San Francisco markets. *California Historical Society, FN-30975.*

ing to grubbing for gold. While there is little doubt that market-hunting depleted elk populations, it was the spread of agriculture, and the corresponding destruction of elk habitat, that really led to their near extinction. With agricultural demands came the drainage of the tule marshes, the canalization of rivers, and the fencing of farmlands. Meanwhile, great herds of domestic cattle, sheep, horses, and other livestock competed with elk for the forage produced on lands not suited to crops. In the words of T. S. Van Dyke,

As the swamps began to be drained and the cover burned off, and roads made through the drying ground, it was again the same old story of the white man. By 1875 the antelope were a curiosity on the great plains, where so many thousands lately glimmered through the dancing heat, while the elk were almost as rare in the great tule swamps

that so lately seemed inaccessible. By 1883 only one band was left, and that was on the immense (half million acre) ranch of Miller and Lux in the upper part of the valley, some twenty miles from Bakersfield.

Van Dyke visited the last herd in 1895 and found that only twenty-eight animals had survived despite the protection provided by Henry Miller. From these and perhaps only one other pair of elk reported by Game Warden A. C. Tibbets in 1895, the present population of tule elk, now numbering over two thousand, descended, but genetic diversity has been lost.

The near extermination of elk was matched by that of the pronghorn. The antelope-like grazers roamed the sea coast from Monterey to the Los Angeles basin, and the interior from the upper limits of the Sacramento Valley south into Baja California and east into the Great Basin and the Mojave Desert. But the pronghorn were animals of the grasslands, not adapted to forest, chaparral, or tule marshes. Thus, unlike the elk or black-tailed deer, they had no place to hide from the hunters. Their keen eyesight and fast running speed were no match for firearms, and they were rapidly wiped out from their main center in the Central Valley, the coastal areas, the desert fringes. Only in the northeastern corner of the state, in the sagebrush plains, did pronghorn survive. One could blame their decline on gold-rush mining, and it was, no doubt, a contributing factor, but it was the resultant lack of government protection and popular support for conservation, combined with the spread of pastoralism and agriculture, that were the main causes.

GRASSLAND CHANGES

Radical changes in California's grasslands began to take place more than seventy years before the Gold Rush. With the coming of the Spanish missionaries in 1769, new elements were added to California's broad spectrum of animal life: cattle, sheep, goats, horses, and donkeys, as well as domestic fowl. These exerted a heavier pressure on the grasslands and oak savannahs of the state, which were already supporting, presumably at a carrying capacity level, great herds of elk, pronghorn, deer, and bighorn sheep. Even without any other element of change, this increased pressure of grazing alone would have changed the nature of the grasslands in favor of those species less preferred by, and of lower nutritional value for, domestic livestock. At the height of the mission period in the early decades of the nineteenth century, some 400,000 cattle and 300,000 sheep were added to the half-million elk and no doubt greater numbers of pronghorn and deer in the grasslands of the state.¹ Many wild herds of cattle and horses had strayed from missions and ranchos into the San Joaquin Valley, but most of the managed herds were in the coastal mountains and valleys from San Diego to Sonoma. Added to this pressure on the native grasses was

the sometimes devastating effect of California's climatic cycles of flood and drought years, as well as the cessation of grassland-burning by Native Americans.

Perhaps of even greater consequence was the Spaniards' introduction of foreign species of grasses and forbs. These exotic species of Mediterranean origin were well adapted to California's climate, and equally important, to heavy grazing pressure. They were, for the most part, annuals, able to ride out drought in seed form and germinate when rains finally came.¹⁵

Before the Gold Rush, introduced species of grasses were certainly well established in the more southern areas, but probably not as much in those northern parts of the state with higher rainfall and less pressure from introduced livestock. In 1841 John Bidwell traveled through the Central Valley in the spring. He wrote of the clear atmosphere, the plains brilliant with flowers, the luxuriant herbage. Historian Rockwell Hunt wrote that "When Bidwell entered California in 1841, and for several years thereafter, wild game abounded and in such variety that even the most moderate and restrained description, were it not already familiar everywhere, would excite the absolute incredulity of the critical listener."¹⁶ Similarly, in the spring of 1844, John Charles Frémont traveled through the San Joaquin Valley to Walker's Pass in the southern Sierra. He described

a level region covered with grass with an occasional grove of live oaks to lend variety. There were fields of blue lupine, several feet in height, which interspersed with the profusion of golden poppies, added to the pleasure of the travelers. They saw several bands of elk and antelope . . . also bands of wild horses were numerous, particularly on the west side of the river.¹⁷

However, cattle herds were built up in the 1850s to meet the demands of an increasing gold-rush population, with a peak of over three million head reached in 1862. Grazing pressure intensified and became more widespread, only to face the floods of 1862 and severe drought of 1862-1864. Cattle numbers crashed to a low of a half-million by 1870. Sheep were more adaptable than cattle, and their numbers increased to 5.5 million by 1875. With sheep came heavy pressure on wet high mountain ranges, to which they were driven when grazing and summer drought had depleted lower-elevation ranges. John Muir, who worked as a sheepherder in the late 1860s, recorded the devastation of the meadows: "Sheep, like people are ungovernable when hungry . . . almost every leaf that these hooved locusts can reach within a radius of a mile or two from camp has been devoured. Even bushes are stripped bare."¹⁸ Scientist William Brewer kept a journal, and during the great drought he also described a similar scene on May 30, 1864:

We came onto San Luis de Gonzaga Ranch, at the eastern end of the pass. Our road lay over the mountains. They are perfectly dry and barren, no grass—here and there a

gaunt cow is seen, but what she gets to eat is very mysterious. All around the house it looks desolate. Where there were green pastures when we camped two years ago, now all is dry, dusty bare ground. Three hundred cattle have died by the miserable water hole back of the house, where we get water to drink, and their stench pollutes the air.

The ranch contains eleven square leagues, or over seventy six square miles. In its better days it had ten thousand head of cattle, besides the horses needed to manage them. Later it became a sheep ranch, and two years ago, when we camped here, it fed sixteen thousand sheep besides some few thousand cattle. Now, owing to the drought, there is no feed for cattle, and not over one thousand sheep, if that, can be kept through the summer.²⁰

Heavy grazing, drought, and fire suppression in the 1850s and later took their toll on the rangelands, with the result that annual grasses of Mediterranean origin now dominate in California, and relatively few sites are still covered by native perennial bunchgrasses.

FOREST CHANGES

California's forests were not subject to heavy pressure, except locally, until relatively recently. In Spanish and Mexican times there was only a limited demand for wood for building. The Gold Rush brought its influx of people and a demand for housing. Redwood forests were cut down in the hills surrounding the San Francisco Bay and southward in the Santa Cruz Mountains. Around the gold camps and the new towns, forests soon disappeared. Historian Ralph Mann has written of this for the Grass Valley and Nevada City mining towns:

The towns had been located among hills once laden with the most magnificent forests imaginable but now the ridge between the towns, like the hills for miles around, was denuded. The mines and mills required vast amounts of fuel and lumber, and by the late 1860s the great American plan of cutting down every tree was beginning to cause concern. Timber lands had been pre-empted, wood had to be hauled great distances, and prices were high.²¹

Following on the Gold Rush, the Comstock silver mines in Nevada caused removal of the pine forests on the Sierra east of Lake Tahoe. Away from the Mother Lode country, the ancient sequoia were cut down, apparently just because they were there, in the Converse Basin of what was to be Sequoia-Kings Canyon National Park. They were left lying on the ground.²¹

The first mechanical sawmill to be built in Hispanic California was in the Santa Cruz Mountains in 1822, but by that time the Russians at Fort Ross may have been exporting redwood lumber to Hawaii and elsewhere. The practice was well established by 1827, when Fort Ross was visited by the French explorer Duhaut-Cilly. By the Gold Rush, lumber was shipped in large quantities from Eureka to San



In 1856, when the pioneer San Francisco lithographers Charles Kuchel and Emil Dresel drew the town of Downieville on stone, the surrounding hills had been stripped nearly bare of trees. Established in 1849 on a fork of the Yuba River, the camp grew rapidly, its vigorous mining economy creating a huge need for lumber and fuel. Today, a century and a half later, Downieville is one of the most picturesque of the old mining communities, and grand forests once again cover the rugged slopes. *California Historical Society, FN-16040.*

Francisco, resulting in the inevitable removal of the old-growth forests surrounding Humboldt Bay. All of these efforts had devastating local effects, but at least some forest lands, unlike the grasslands, were to receive federal protection, starting with Yosemite Valley in 1864, to be followed after 1890 by the establishment of national forests and national and state parks throughout the wooded areas of the state.²²

HYDRAULIC MINING

Today, motorists driving along the Tyler Foote Crossing Road off Highway 49 on San Juan Ridge in the Sierra foothills will encounter some strange scenery. Mostly,

they will drive through second-growth ponderosa pine forest, much of which is easily invaded by manzanita or Scotch broom. Settlement is sparse, but there are enough houses, old and new, to indicate the area is inhabited. It is a long way from wilderness, but semi-wild forest vistas are common. Occasionally bears pass through, and coyotes sing at night. Mountain lions are present, usually unseen, along with numerous bobcats, foxes, raccoons, and skunks. Deer do not abound, but there are quite a few. Human society there is somewhat two-layered, the old timers (before 1960) and the various immigrants of the 1960s and 1970s—call them hippies if you will, although most dislike the appellation. Then there are some newcomers, long-distance computer-commuters from Sacramento and points west who are usually well-heeled and build expensive houses. Visitors to the district are shocked to suddenly encounter a moonlike landscape, where the land has been turned upside down and its leached underpinnings revealed. Hills of washed gravel appear stark white in contrast to the red soils of the ponderosa forest. Between some of the gravel ridges here are ponds or marshy areas. At first look the land appears totally barren, but then you notice a few dwarfed pine trees and some green growth in the marshes. It is not, after all, moonlike, but clearly a desert where none should be.

These "diggings," as they are called, extend on up the course of Shady Creek and Tyler Foote to the Malakoff Diggings State Park, where they have been preserved as a historical landmark. They are part of the heritage from the gold seekers of the "days of '49"—a heritage of ruined land. Technically, they were not diggings. Nobody shoveled them. Instead, they date to the hydraulic mining period after 1860, when miners directed powerful jets of water to wash hillsides away and into sluices where the heavy gold could be separated. All the lighter particles, from sand to clay, along with larger rocks and wood, were washed downstream to eventually clog the rivers and help cause the major Sacramento River flooding of the 1860s and later. When the damage landed almost on the steps of the State Capitol, the legislature still took no effective action to outlaw hydraulic mining. Those downstream from the Sierra foothills were left with the residue.

Charles Nordhoff, in his book *California . . . for Travellers and Settlers*, published in 1873, watched the process of hydraulic mining and described it as follows:

Water brought from a hundred or a hundred and fifty miles away and from a considerable height is fed from reservoirs through eight, ten or twelve inch iron pipes through . . . a nozzle, five or six inches in diameter, is thus forced against the side of a hill one or two or three hundred feet high. The stream when it leaves the pipe has such force that it would cut a man in two if it should hit him. Two or three and sometimes even six such streams play against the bottom of a hill, and earth and stones, often of great size, are washed away until at last an immense slice of the hill itself gives way and tumbles down.

At Smartsville, Timbuctoo and Roses Bar (near Marysville) I suppose they wash away into the sluices half a dozen acres a day, from fifty to two hundred feet deep, and in the muddy torrent which rushes down at railroad speed through the channels prepared for it, you may see large rocks helplessly rolling along . . . the gold is saved in long sluice boxes, through which the earth and water are run, and in the bottom of which gold is caught by quicksilver. . . .

But, in order to run off this enormous mass of earth and gravel, a rapid fall must be got into some deep valley or river. . . . At Smartsville, for instance, the bed which contains the gold lies above the present Yuba River, but a considerable hill, perhaps two hundred and fifty feet high, lies between the two, and through this hill each company must drive a tunnel before it can get an outfall for its washings.

. . . of course the acres washed away must go somewhere, and they are filling up the Yuba River. This was once, I am told by old residents, a swift and clear mountain torrent; it is now a turbid and not rapid stream, whose bed has been raised by the washings of the miners not less than fifty feet above its level in 1849. It once contained trout, but now I imagine a catfish would die in it.

. . . as you journey . . . toward the Yosemite, after you leave Murphy's every foot almost of the soil, for mile after mile, has been at some time turned over by the gold seekers. River beds have been laid bare and the adjoining bottoms searched. The earth all the way to the foothills was removed, and as you near Columbia you see immense fields made up of nothing but rocks and boulders sticking their barren, water worn heads into the landscape, with deep pits between them.²³

If hydraulic mining had not been stopped, the gold hunters might well have washed all the soil and loose rock from the Sierra into the Central Valley. As it was, enough debris was washed down the rivers to cause serious damage. The especially heavy rains of 1861-62 brought the first severe flooding induced by hydraulic mining to the Sacramento Valley, as the once-clear streams dumped their loads of silt and debris (slickens). A vast lake covered the southern Sacramento Valley, including the grounds of the State Capitol. William Brewer, who was in California during the flood and the following drought, wrote in January 1862 that "The Central Valley of the state is under water—the Sacramento and San Joaquin valleys—a region 250 to 300 miles long and an average of at least twenty miles wide." In September he wrote from the area of Red Bluff:

Although the channel of the Sacramento is insufficient to carry off all the water of wet winters, yet it is rapidly filling up, each year increasing the difficulty. Previous to 1848 the river was noted for the purity of its water, flowing from the mountains as clear as crystal; but, since the discovery of gold, the "washings" render it as muddy as the Ohio in spring flood—in fact it is perfectly "riley," discoloring even of the waters of the



K Street in Sacramento during the great flood of January 1862. The unprecedented rains that fell from the skies beginning late the previous year overwhelmed river channels choked with mining debris and turned the Central Valley into an inland sea. The city of Sacramento responded by strengthening its levees and raising its streets above the high water mark, as much as ten feet in some instances. *Courtesy California State Library.*

great bay into which it empties. . . . Last winter's floods alone are supposed to have raised the bed of the river at Sacramento six or seven feet at least.²⁴

Despite the complaints of valley landholders, hydraulic mining continued. In 1875, Marysville was virtually destroyed by Yuba River flooding, and great damage was wrought by the Bear and Feather rivers. Still, the political influence of the min-

ing companies was so great that it took many lawsuits and sessions of the state legislature and Congress before any action was taken, and even then early regulations were ineffectual. Finally, in 1884 the U.S. Circuit Court in San Francisco granted a perpetual injunction against hydraulic mining. Although many small miners continued to fight in Congress, the influence of farmers in the valley had grown greater than that of miners in the hills.²⁵

Along Tyler Foote Crossing Road and Highway 49, towns like North Columbia and North San Juan, which thrived to serve the miners, faded away. The population of North San Juan dwindled from 10,000 to a few hundred. One would think that with such a monument to greed as the "diggings," California would have learned a lesson. But mining companies never give up, and still propose to re-enter the ruined lands to scrape up any gold that was missed in the nineteenth century. The setback experienced by the miners in the 1884 court decision was more than compensated by the Mining Act of 1872, which gave miners essentially carte blanche to mine where they pleased on public lands. Despite many efforts to repeal this law, it remains on the books and affects California today.

The Gold Rush can be held responsible for the damage done by mining, even if much of it took place well after the original rush, after many of the Forty-niners had made their slow, crestfallen way home, without gold. It was the Gold Rush that set off the destructive, furious search for the yellow metal that later brought the moving of mountains and filling of valleys.

EVALUATION

There is enough damage to be charged to the Gold Rush without adding to it environmental changes that preceded it or would have gone on in its absence. Undoubtedly the greatest harm resulted from hydraulic mining, but mostly because the damage persisted far beyond the mining period. Beyond that, the Gold Rush had, at worst, an accelerating effect on activities that would have occurred, but at a slower pace, such as grazing, draining of wetlands, logging, and hunting. The changes in grasslands that were still localized in 1849 became much more widespread and severe because of rapidly growing numbers of people and much greater demand for meat, milk, wool, hides, and other livestock products. Some of these changes were further accelerated by the recurrent droughts that were a normal part of California's climate. Areas visited by William Brewer in 1861 and noted as rich pastures were devastated and barren when revisited in 1864 when the severe drought was in progress. These disturbed areas were quickly colonized by the exotic, aggressive annuals brought in during Spanish colonization.

The increase in population started by the Gold Rush also stimulated an increased demand for housing, which in turn caused stepped-up logging in the more accessi-

le forest stands. But the towns and cities would have grown eventually without the Gold Rush, and the demand for wood also. It is dubious that government intervention and control during a slower-paced period of growth would have been much help in saving the old-growth forests, when such regulations are still relatively ineffective today.

Without the Gold Rush, the spread of agriculture would have happened in any event, and with it, the drainage and clearing of tule marshes, the construction of irrigation canals, and the damming of rivers, and with that the loss of waterfowl and fish habitat. The construction of the transcontinental railroads had more effect by far on the demand for farm products than did the Gold Rush. The Homestead Act and other government policies intended to encourage settlement brought the movement of people into every habitable area of the state by the end of the century.

The devastation of wildlife began long before the Gold Rush, and it was more the increase in population and spread of people into the far reaches of California after the Gold Rush that brought the demise of the grizzly, jaguar, and wolf and the near extermination of elk, pronghorn, condors, and other species. But in reach of the mining camps and towns, wildlife had small chance for survival.

There was a "window of opportunity" for more balanced resource usage between the breakdown of Spanish/Mexican control and the creation of the new state of California. The Gold Rush easily closed that window and gained for the miners unlimited license to create environmental havoc. It is fortunate that the supply of accessible gold was limited and not more widely distributed throughout the state, or California would be known for its barren diggings instead of its mountain forests and golden hills.

NOTES

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3. Joan Halifax, *The Fruitful Darkness* (San Francisco: Harper San Francisco, 1993), 97-98. Semu Huaute's description was told to Joan Halifax.

4. Joseph Grinnell, J. S. Dixon, and J. M. Linsdale, *Fur Bearing Mammals of California* (Berkeley: University of California Press, 1937), 68-94. Although the two volumes of this work are primarily a natural history and biological account of the larger mammals sought by

fur traders, they are also a source of historical information on the distribution, abundance, and behavior of the larger species of furbearers.

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7. Raymond F. Dasmann, *California's Changing Environment* (San Francisco: Boyd and Fraser, 1981), 15.
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17. Herbert Bashford and Harr Wagner, *A Man Unafraid, The Story of John Charles Fremont* (San Francisco: Harr Wagner Publishers, 1977), 132-33.
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20. Ralph Mann, *After the Gold Rush: Society in Grass Valley and Nevada City, California, 1849-1870* (Stanford: Stanford University Press, 1982), 137.
21. Fry and Whyte, *Big Trees*, 18-23.
22. C. Raymond Clar, *California Government and Forestry* (Sacramento: California Division of Forestry, 1959), 8, 16, 30, 64.
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6

*"I am resolved not to interfere,
but permit all to work freely"*

The Gold Rush and American Resource Law

Donald J. Pisani

The California Gold Rush profoundly influenced the evolution of property law in the American West. In theory, Congress held the public domain in trust for the benefit of all citizens of the United States. In practice, the public lands bought or taken from Indians or other nations now belonged to those Euro-Americans with sufficient wit, energy, zeal, and capital to exploit them. California was the first state admitted to the Union that contained large deposits of precious metals, and its experience set an important precedent: mining on the public domain would be open to all. The national government imposed neither charges nor regulations on the Argonauts who swarmed into California during the late 1840s and 1850s. The miners were trespassers on government land, yet *they* decided who would be granted access to the gold and under what conditions. They also decided who would be allowed to use the water needed to work the mineral claims, laying the foundation for the legal doctrine of "prior appropriation," which eventually spread to agriculture with enormous implications for the history of the arid and semi-arid American West.

MINING AND AMERICAN RESOURCE LAW BEFORE THE GOLD RUSH

In the United States, mineral law grew out of the same assumptions and values that shaped land law. In medieval Europe, land ownership imposed a set of obligations and relationships that defined and ordered society. With the Enlightenment, theories of the English philosopher John Locke, among others, freed property from class and state, making it the bedrock of individual freedom and autonomy. In the second of Locke's *Two Treatises on Government* (1690), property became a God-



Miners with Rocker and Blue Shirts, a handsome and striking hand-tinted daguerreotype made about 1852, probably by George H. Johnson. In theory the federal government held the public domain in trust for all citizens of the republic. But in practice the Argonauts seized it for their own enrichment, controlling its use through a self-administered system of mining codes that prevailed far in advance of any constitutionally authorized body of laws. *Collection of W. Bruce Lundberg.*

given, transcendent natural right that preceded human society and the social contract; it was no longer the gift of kings, queens, nobles, or even Parliament. The concept of property derived from a set of interlocking assumptions: God had given the earth to human beings in common, but had created it for the rational and industrious, not for the slothful and impecunious. Human beings had a right to life or self-preservation, which, in turn, dictated the right to a subsistence. To make the earth useful, there had to be a method of appropriation. Since human beings "owned" themselves, by extension they also had a right to their own labor. Therefore, the primary value of land derived from the labor that went into fencing, plowing, planting, or draining it. Property was created only when human beings produced something from the raw materials God had provided.¹

In the United States of the late eighteenth and nineteenth centuries, law, politics,

economics, and anthropology reinforced Lockean thinking. In his *Commentaries*, published in the United States in 1772, the English jurist William Blackstone noted that "so great is the regard of the law for private property, that it will not authorize the least violation of it; no not even for the general good of the whole community."² Adam Smith bolstered Lockean thought by emphasizing the virtue and wisdom of rational self-interest. He also anticipated Frederick Jackson Turner's frontier thesis by arguing that human societies evolved through distinct stages that corresponded to modes of subsistence: hunting, grazing, agriculture, and, ultimately, commerce. Later, the marriage between anthropology and Social Darwinism added a new element to the American concept of property. Most anthropologists regarded property held in common, or by the state, as more "primitive" than individual rights—which were widely assumed to be more efficient and less wasteful. The monopolization of natural resources by private corporations or the state stifled economic opportunity, undermined civic virtue, and promoted the growth of bureaucracies that threatened liberty.

Those who settled on the public lands of the United States carried Lockean ideas to the vast frontier of the American West. Usually ignoring all prior Indian land use and property rights, the first Euro-Americans to enter a region assumed a paramount right defined by chronological priority and continuous, "beneficial" use. Then, as now, priority was used to ration scarce items. Yet the public domain was so large that it simultaneously encouraged monopoly as well as equal access. "There was room enough for all," the historian Ernest Osgood wrote decades ago, "and when a cattleman rode up some likely valley or across some well-grassed divide and found cattle thereon, he looked elsewhere for range." In eastern Montana and central Wyoming, cattlemen even advertised their claims in newspapers. "I, the undersigned," one announcement read, "do hereby notify the public that I claim the valley, branching off the Glendive Creek, four miles east of Allard, and extending to its source on the South side of the Northern Pacific Railroad as a stock range.—Charles S. Johnson." In theory, only Congress could dispose of the "open range," but many territories and states enacted laws upholding the exclusive usufructuary rights (to use and the profits from that use) of the first stockmen on the scene.³

Squatter clubs, commonly called "claims' associations," reinforced the assumption that unimproved government land—again, usually ignoring prior Indian settlement—was not property. Where government land had not been surveyed—and surveys rarely kept pace with settlement—federal preemption laws gave actual settlers a claim to their homestead. But even the general Preemption Act of 1841 did not eliminate the need for such associations. In theory, the claimants had to be beyond the reach of formal legal institutions. Trespassers drafted constitutions, elected governing councils, established arbitration procedures to prevent or mitigate disputes, and pledged to prevent bidding by those who did not belong to their club. The

first residents, it was argued, should have the right to purchase government land at the minimum price of \$1.25 per acre once the surveyors caught up with them—without interference from “claim jumpers” or those who came later. The claims clubs assumed that the public domain existed to aid individual opportunity and the economic development of the frontier rather than the economy of the nation or the financial needs of the central government. Most clubs also welcomed small-fry land speculators by permitting the first settlers to purchase an additional 80 to 160 acres and to sell all or part of their “occupancy right.”⁴

The values that drove American land policy also dictated mineral policy. Most of the states’ old colonial charters had contained outright grants of minerals, but they also reserved a share to the English Crown (usually 20 percent of all precious metals). During the American Revolution, mining was seen as a way to help pay off the war debt, and the Land Ordinance of 1785 reserved to the federal government one-third of all gold, silver, lead, and copper taken from the public lands. The major land acts of the first half of the nineteenth century excluded mineral lands from entry. In 1807 Congress authorized leasing the lead mines in Indiana Territory—the site of the only extensive mining undertaken in the United States before the California Gold Rush—for terms of up to five years. Military needs dictated this decision, and the leases were administered by the War Department, which began collecting a 10 percent royalty in 1822. Many miners refused to secure a permit, and the actual production of lead was four times that reported to the War Department. Nearly one million acres of mineral lands had been reserved by the 1840s, but the public lands had not been classified and plenty of mineral land became private property before it was subjected to leasing. Beginning in 1834, and especially after the Panic of 1837, the price of lead plummeted and rental fees dried up. The War Department, moreover, lacked a sufficient number of agents to police the frontier. Even so, the cost of administration and litigation far exceeded the revenue returned to the central government.⁵

In the mid-1840s, the commissioner of the Land Office and President James K. Polk called for an end to leasing, a practice that had prompted extensive litigation and was highly unpopular on the frontier. To add insult to injury, in the years from 1841 to 1844 leasing returned only about 25 percent of the cost of administering the system. Polk wanted to sell the mineral lands and require purchasers to pay a small royalty to the government. “It was better to realize something on these lands [through outright sale],” historian Roy Robbins has written, “than to have them appropriated illegally by settlers, or to have them plundered by trespassers and thus rendered unfit for sale. Undoubtedly the pressure of western protest against continuing the leasing system also influenced the government to recommend the change. The State of Michigan in 1846 took a firm stand against the perpetuation of a system of ‘patroonery’ on her territory, and insisted that all mineral lands be sold and rendered taxable by her.” The lead-bearing lands in Illinois, Wisconsin, Michigan,

nd Arkansas went on sale in 1846 and the copper and lead mines in the Lake Superior District of Wisconsin and Michigan in 1847.⁶

GOLD IN CALIFORNIA

Those who flocked to California at the end of the 1840s carried with them strong ideas about the nature of property, the right of American citizens beyond the pale of law to govern themselves, and the power of American citizens to make their own rules concerning the acquisition and use of public lands—including those containing mineral deposits. Nevertheless, Congress had authorized the sale of lead and copper lands. Would it now authorize the sale of gold-bearing land to the highest bidders?

This was the question that faced the U.S. Army in California when gold was discovered in January 1848. In February 1848, Colonel Richard Mason, the military governor of California from 1847 to 1849, abolished all Mexican mining laws and customs. In July, he visited the gold camps and considered selling the mineral land in twenty- to forty-acre plots, or charging miners a license fee of \$100 to \$1,000 for the privilege of working claims. But Mason had only 660 soldiers under his command, and martial law would have been intolerable to the Argonauts. If used to govern the mineral region, Mason fretted, his troops might desert and turn to mining themselves. Nor could he be sure that his system would prevent a handful of capitalists from monopolizing the best land. "It was a matter of serious reflection with me," Mason wrote, "how I could secure to the government certain rents or fees for the privilege of procuring this gold; but upon considering the large extent of the country, the character of the people engaged, and the small scattered force at my command, I am resolved not to interfere, but permit all to work freely."⁷

California was technically not even a part of the United States when the Gold Rush began. Initially, *alcaldes* (mayors) ruled over most settlements, including some mining camps, but the miners soon took matters into their own hands. The principles of equal opportunity, home rule, antimonopoly, preemption, and priority rights were customs of the American frontier with deep roots in logic and experience. Mexican institutions and values emphasized conciliation and accommodation to the detriment of contract, and they regarded community stability as a higher good than individual property rights. Mining camp codes, by contrast, were more concerned with the allocation of natural resources to individuals than with creating a moral society.⁸

The miners made great use of the essential premise of the English common law: that universal custom had as much legal sanction as formal statutes. Two common-law principles were particularly important. First, when two or more people trespassed on land owned by a third, the first to enter and use the land had a superior

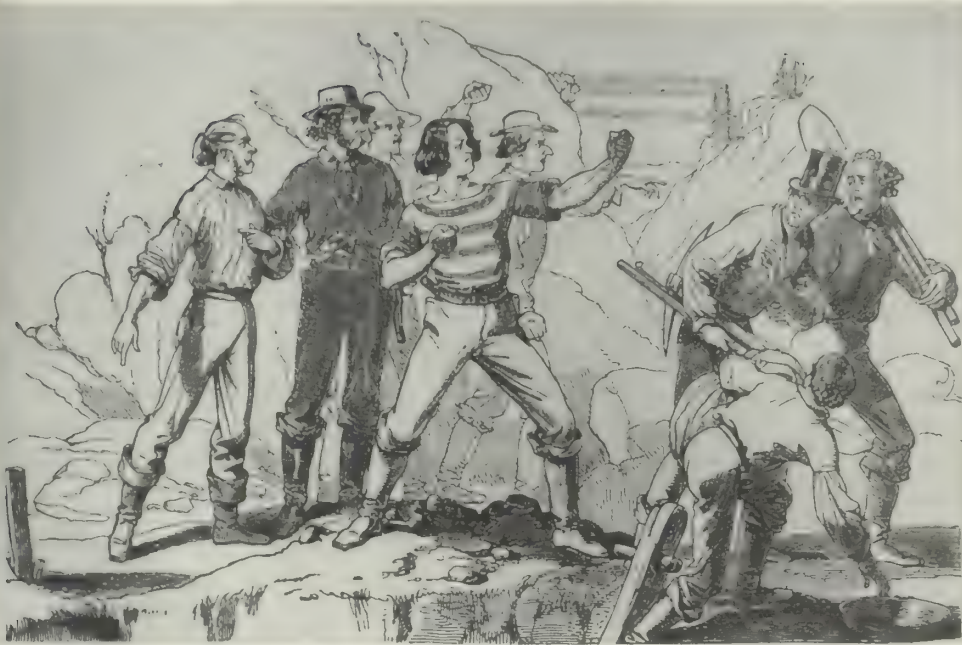
claim to all others (except the legal owner); second, all trespassers were limited to "reasonable use." These principles helped lay the foundation for priority rights on the public domain.⁹

Mining camp codes did not originate in California,¹⁰ but within the United States no previously discovered mineral regions were as extensive as those in California, which by the 1860s contained about five hundred mining districts. Regulations varied from camp to camp, but they had much in common. Those miners who were the first to locate the precious metals had spent money and energy demonstrating that gold was available; all subsequent work depended on their efforts and ingenuity. Much of mining was trial and error, so the second or third wave of Argonauts to enter a mining district did not face the same economic risks or obstacles. Those first on the scene also founded towns and built roads, creating the economic context in which profitable mining could take place. Therefore, they were granted a "right of discovery"—usually a larger claim or two claims—as well as chronological priority.

The mining codes regulated the size of claims, the process of filing and marking them, and the necessity for continuous work for the claim to remain valid. Since the land was owned by the federal government, claims conferred usufruct rights rather than absolute ownership. Depending on the richness of the gold deposits, they could be as small as one hundred square feet or several times that large, but they were generally limited to the amount of land one man could work. The land laws of the United States permitted farmers to acquire far more land than they could work; the mining laws did not. The codes also provided a process for arbitrating disputes by an alcalde, council, or jury—often with a right of appeal from the arbitrator or arbitrators to the entire mass of miners within a district—and proclaimed that no compensation need be paid for the privilege of mining to either the state or federal governments. Many miners expressed disdain for formal law, and thus some districts banned lawyers—or at least prohibited them from practicing their trade.¹¹ In February 1850, the California Senate's Committee on the Judiciary noted that it was a "popular doctrine" that common sense was "entitled to higher consideration than the reflection and ripe experience of the most profound jurist. . . . In short, reduced to its simplest terms . . . the proposition is, that the man who is entirely ignorant of a multifarious subject, is more competent to form a just and correct judgment concerning it, than the man who has made it the business of his life to comprehend it in theory and understand it in its minute and practical details."¹²

FREE MINING

The California legislature sanctioned "free mining" at the beginning of 1851. In 1850 the alcalde of Marysville, Stephen J. Field—who was destined to become chief justice of the California Supreme Court in 1857 and to serve the longest term in the his-



"Bogue Ejecting the Squatters," one of the illustrations by Charles Nahl that enliven the pages of *Old Block's Sketch-Book*. This collection of charming and humorous tales of gold-rush California was published in 1856 by Alonzo Delano, who, like Nahl, had earlier tried his hand at mining. Although disputes over claims were generally resolved through arbitration according to the dictates of local custom and code, miners occasionally relied on direct action to secure their rights. *California Historical Society, FN-30963*.

tory of the U.S. Supreme Court, from 1863 to 1897—ran for the legislature from Yuba County, which at that time also contained what would become Nevada and Sierra counties. The immense county was 100 miles long and 50 miles wide, with a scattered population of 25,000. Most miners were far removed from the county seat and institutions of government.

Late in his life, Field recalled that one of his campaign planks in 1850 was "giving greater jurisdiction to the local magistrates, in order that contests of miners respecting their claims might be tried in their vicinity. As things then existed the right to a mule could not be litigated without going to the county seat. . . . I was in favor of legislation which would protect miners in their claims, and exempt their tents, rockers, and utensils used in mining from forced sale [by the federal government]." The 1851 law he sponsored provided that "in actions respecting 'Mining Claims,' proof shall be admitted of the customs, usages, or regulations established and in force at the bar, or diggings, embracing such claim; and such customs, usages, or regulations, when not in conflict with the Constitution and Laws of the State, shall govern the decision of the action." Simple as it was, this law became the foun-

dation for mining on the public domain throughout the American West. Field claimed that mining camp law symbolized "that love of order and system and of fair dealing which are the prominent characteristics of our people." The laws were framed, he insisted, "to secure to all comers, within practicable limits, absolute equality of right and privilege in working the mines." Field, of course, exaggerated. The mining camp codes did not always welcome "all comers" or promote "fair dealing." The California legislature enacted many laws pertaining to the mineral lands, including foreign miners' taxes that permitted some miners to discriminate against others and provided for eviction from the mining districts if not paid.¹³

California's courts quickly adopted the principle of free mining, though not without confusion. Miners could not abridge the rights of the United States, but they limited competition and prevented the monopolization of the mines by the state or private corporations. In 1853, in a bizarre appeal to English precedent, the California Supreme Court proclaimed the state's sovereignty over all mineral lands in California. Those who favored the decision hoped that the mines could be taxed to pay state expenses. The ruling met strong opposition from within the mining districts, where critics charged that the court had been bribed by capitalists who hoped to take from the state what they could not persuade Congress to give them. Critics also feared that since the case would inevitably be overturned by the U.S. Supreme Court—which it was—it would weaken rather than strengthen mineral claims.¹⁴

In his annual message to Congress in December 1850, President Millard Fillmore echoed President Polk's suggestion that the mineral lands be sold at auction in small parcels. But by the time he addressed Congress a year later, Fillmore feared the consequences of such a policy. Now he recommended that the gold fields of California "be permitted to remain as at present, a common field, open to the enterprise and industry of all our citizens, until further experience shall have developed the best policy to be ultimately adopted."¹⁵

Congress said little more about the mineral lands during the 1850s, but large hydraulic mining companies proliferated in California during the first half of the 1860s, and friends of corporate mining feared that English and Scots investors would refuse to sink more money into the mines until Congress *formally* approved free mining. Moreover, at the end of the Civil War, western miners faced several financial threats. Congress might auction off the mineral lands to help pay off the national debt incurred by the war, an alternative favored by the secretary of the treasury. Or it might retain title to these lands, levy a production or transportation tax, or extend the 1861 income tax to miners. (By the end of the war, the income tax produced almost one-fifth of all federal revenue, but given the transient nature of miners the cost of administering such a tax system would have been high.) In 1865, Congressman George Julian of Indiana introduced a new bill to sell the mineral lands. Similar legislation was introduced in the U.S. Senate, but Congress refused to act—in large part

because California's delegation predicted that revolution would result. Miners bombarded Congress with petitions urging the rejection of the Julian bill.¹⁶

In 1865, the U.S. Supreme Court acknowledged that free mining enjoyed "implied sanction" and had contributed "largely to the prosperity and improvement of the whole country."¹⁷ Nevertheless, since the Constitution explicitly granted Congress the authority to regulate and dispose of the public lands, the high court could not make policy. In 1866, the disposition of the mineral lands again came before Congress. Debate focused on a bill introduced by Senator William Morris Stewart of Nevada, who, along with Senator John Conness of California, had led the opposition to Julian's plan in the previous session of Congress. Stewart spoke for the vast capital that had been poured into the Comstock Lode, but he played on public sympathy for the individual miner: "I assert . . . that the sand plains, alkaline deserts, and dreary monuments of rock and sagebrush of the great interior, would have been as worthless today as when they were marked by geographers as the Great American Desert, but for this system of free mining fostered by our own neglect, and matured and perfected by our generous inaction." Since the principal asset securing the national debt was land, and since increasing the production of gold would drive up the value of that land, Stewart also argued that free mining would do more to reduce the national debt than would selling the mineral claims.¹⁸

Congress adopted Stewart's bill in 1866, and it became the foundation of mining on the public domain. It confirmed the status quo and extended the rules established in California's gold camps to the rest of the West. It ensured that mineral lands within the public domain would remain open to "all," that the rules governing their use should be dictated by the miners themselves and ratified by the state, territorial, and federal governments, and that miners who wished to secure clear title to their claims could do so for \$5 an acre. The 1866 law applied only to shaft mining, but in 1870 Congress extended the opportunity to purchase claims to placer miners, at \$2.50 per acre. A third mining law, adopted in 1872, completed the formal process of turning control over precious metals to the miners, counties, and states.¹⁹

HYDRAULIC MINING

The extent to which these laws contributed to the growth of hydraulic mining is uncertain, but they did nothing to restrain that growth. Hydraulic mining flourished only in those parts of California blessed with abundant surface water. The Argonauts could not have washed away mountains of topsoil to get at ancient stream beds except on California's remote and mountainous public domain, where no substantial industries competed with mining and no traditional riparian water rights prevented diverting water from natural channels. North of the Feather River, thick volcanic deposits covered rich Tertiary gravels, but in the Southern Mines the Ter-

tiary deposits were far smaller. The most profitable hydraulic mines were located on the ridge running between the South and Middle forks of the Yuba River, ten to twenty miles northeast of Nevada City. There, the mining communities of French Corral, Birchville, Sweetland, North San Juan, Columbia Hill, Lake City, North Bloomfield, Relief Hill, and Moore's Flat flourished. By the 1860s, Nevada was the leading mining county in California. As early as 1864, one observer reported that "so great has been the quantity of ground washed away, that many of the ravines are covered with a depth of twenty feet and upwards of tailings from the sluices." Nevada County's gaping hydraulic mines were as much as a mile long and exposed walls of earth five hundred feet high.²⁰

In 1861, a thicker canvas hose, reinforced with iron hoops, tripled the velocity of water that miners could direct against the earth. Eight-inch nozzles produced a force great enough to kill the hapless miner who ventured into the water's path.²¹ After the drought of 1862-1864, corporations consolidated most of the smaller companies. English capital poured into hydraulic mines, in part because of high profits, in part because of the promises of geologists like Benjamin Silliman of Yale, who reassured potential investors: "It is proven by the most ample testimony that the ancient gold bearing gravel of California contains an inexhaustible store of gold diffused with wonderful uniformity throughout the mass, and, in the aggregate, far exceeding the entire product which the golden State has yet sent into the commerce of the world." This, coupled with Silliman's promise that investors could expect a 20- to 25-percent annual return for an "indefinite time to come," won plenty of financial support.²²

The hydraulic mines of Nevada, Sierra, and adjoining counties produced great wealth for decades after the Gold Rush, but the mining industry became more and more localized. In the 1860s and 1870s, it faced a serious challenge from the expansion of wheat farming in California's Central Valley. The flood of 1862 washed huge quantities of debris into the Yuba River, and thence into the valley. Marysville, at the confluence of the Feather and Yuba rivers, became a walled city, surrounded by levees as high as chimney tops. As the years passed, the Sacramento, Feather, and Bear rivers, as well as the Yuba, filled with silt, which affected navigation and commerce as far away as Suisun, San Pablo, and San Francisco bays. Thirty thousand acres of prime alluvial farmland became choked with mud from mining sites in the foothills. Once mining had been supreme, but by the 1870s, agriculture played an increasingly prominent role in California's economy.²³

The mining debris controversy became a prominent issue in California politics, prompting the first debates over flood control in the Sacramento Valley.²⁴ In 1884, Judge Lorenzo Sawyer of the U.S. Circuit Court permanently enjoined the mining companies from damaging the property of Central Valley residents. Ironically, he used the same argument for equality of opportunity that had once justified free mining. "It



"Piping the bank" near the community of French Corral, hard by the South Fork of the Yuba River in the richest of all the hydraulic mining districts of California, about 1865. Despite the compelling aesthetic of the photographer's powerful composition, hydraulicking was a terribly destructive technology, laying waste to rolling hills, devastating streams, and covering downstream farmland with "slickens." "It is impossible," wrote an observer, "to conceive of anything more desolate, more utterly forbidding, than a region which has been subjected to this hydraulic mining treatment." *Courtesy Society of California Pioneers.*

by protecting the most humble in his small estate against the encroachments of large capital and large interests," Sawyer proclaimed, "that the poor man is ultimately able to become a capitalist himself. If the smaller interest must yield to the larger . . . all smaller and less important enterprises, industries, and pursuits would sooner or later be absorbed by the large, more powerful few; and their development to a condition of great value and importance, both to the individual and the public, would be arrested in its incipency."²⁵ Shaft, or hardrock, mining survived, but never again would the mining industry exercise the political clout it enjoyed in the 1850s and 1860s.²⁶



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The future was on the side of agriculture, but it was not on the side of “the most humble in his small estate.” In the late 1840s and early 1850s, free mining provided reasonably equal access to wealth—except to certain groups of “foreign” miners. But during the 1850s, as corporations increasingly dominated mining, the law changed from encouraging economic democracy to protecting capital. Perhaps the best example was the legal permission to “follow the vein.” In Mexico, England, and other European countries, miners could only dig within the boundaries of their claims, and initially California’s mining camp codes limited hardrock miners to part of a vein, often one hundred feet. As early as 1852, however, Nevada County modified its laws to encourage miners to follow a vein downward to any depth and in any direction, even if they tunneled under an adjoining claim. The new laws were designed to protect investors from financial loss when only the tail end of an out-

ropping was located within their claim. Not surprisingly, this innovation spawned many lawsuits. In an attempt to reduce litigation, the 1872 Congress specified that only those miners who located the highest point of a lode—the “apex”—should be allowed to follow the lode under adjoining claims.²⁷

The 1872 law promoted rather than quieted legal conflict. Locating the apex of a vein that snaked through the earth was difficult, and the fact that many veins are not continuous made the problem even more complicated. Was a discontinuous vein part of the original vein or an entirely new mineral deposit? The historian Otis Young has explained how this law opened the door to legal blackmail: “At its rock-bottom worst, apex litigation began when a would-be plaintiff had, or arranged to obtain, title to property adjacent to that of a prosperous mine. He next hired a geologist to discover that a shoot of the high-grade lode cropped out on his own property and to theorize somehow that the tail of the shoot wagged the dog of the lode. The next step was to retain a high-powered attorney, one who specialized in apex litigation on a contingency-fee basis, to bring suit against the prosperous mine. The attorney then filed a brief on the law side of the appropriate court, swearing that the plaintiff either had priority of discovery (thus entitling him to the whole) or at worst was entitled to receive lucrative remedies for the damages he was suffering from the depreciations of a soulless corporation. The hope, of course, was that the defendant mining company would settle out of court for a substantial sum, irrespective of the facts, in order to be rid of a dangerous nuisance.”²⁸

Both sides in such a contest hired as many expert witnesses as they could find and afford, so more than a few geologists spent their entire careers as expert witnesses. In one five-year period, lawsuits in Nevada courts cost about 20 percent of the entire output of the Comstock mines. “No industry in any country,” Clark Spence has wisely concluded, “was ever subject to as much or as complicated legal activity as mining in western America.”²⁹

WATER LAW

The prior appropriation principle of water rights was to placate mining what the apex law was to lode mining. As enforced in courts within the eastern United States, riparian rights granted those who owned land bordering a stream the exclusive right to use water from that stream on their property. Such rights were “correlative” rather than absolute. They could be defined only in relationship to each other, not as absolute grants of specific quantities of water. Riparian owners could divert water to meet domestic needs or to water livestock. They could even reduce the flow of a stream, if their diversions were “reasonable.” However, no commercial use of water, such as irrigation, could materially reduce the flow of a stream—at least not if the other riparian owners complained.³⁰

Prior appropriation granted the first to use water the right to carry it anywhere, and use it for any purpose, as long as that use was "beneficial." The principle was simple, but the law took shape gradually. During the 1850s, many mining camps prohibited water diversions that injured one group of miners at the expense of another. They demanded the consent of those working placer deposits adjoining a stream before water could be turned from its natural channel. In addition, mining camp codes often prohibited the construction of diversion dams that backed up water onto claims above the dam, reserved the use of water in a creek or ravine exclusively to miners within that watershed, and prohibited miners from claiming surplus water for speculative purposes. Not all mining camps adopted formal rules related to water use because most preferred the arbitration of disputes to cut-and-dried edicts. Nevertheless, when the arbitration process broke down, miners dynamited ditches, chopped down wooden diversion dams, and tore down or burned flumes. Most often, lawyers, and later historians, ignored these conflicts, preferring to portray the mining districts as models of grassroots democracy rather than communities torn between individual and corporate enterprise. Only after mining passed from an activity engaged in by individual miners or miners organized in small groups to large hydraulic mining corporations—for which the miners worked as hired hands—did prior appropriation calcify into doctrine. Its triumph was due more to changing technology and capital requirements than to the fact that it made more sense in arid or semi-arid climates.³¹

It was one thing for *miners* to claim water by prior appropriation for their own use, quite another for *entrepreneurs* who did not engage directly in mining to claim water and form companies to sell it. Monopoly and outside control were two of the deepest fears in the mining camps. At first, priority rights applied to the age of claims, not to the age of water rights; water use was incidental. Eventually, however, the cost of carrying water farther and farther from existing streams proved overwhelming, and once the miners permitted the creation of autonomous water companies, the genie could not be stuffed back into the bottle. Heavily capitalized, the companies demanded an exclusive market. In October 1853, a group of miners at Yankee Jim's in Placer County wrote to the *Placer Herald* warning that the new ditch companies would soon destroy the rights of actual miners: "They [the water companies] tell us that we are to be harassed and embarrassed with endless and perplexing law suits, that will cost more than all the claims are worth, and they further tell us, that the price of water will not be reduced. . . . Thus has crept into our midst a tyrant in the form of a lamb, and has gradually assumed the form of a two horned beast, whose right horn is bread, and the left horn water, and the community [sic] are gored into surfdom [sic]." ³² The miners were caught in a dilemma: without water, they could not find gold; with it, they became the subjects of powerful corporations whose headquarters were scattered from San Francisco to Scotland.



The office of the Coyote and Deer Creek Water Company near Nevada City in 1852, the year following completion of its ditch, which brought water to the dry diggings of the district. Among the earliest water companies in California, it was later one of hundreds that became part of the Pacific Gas and Electric hydroelectric system. *Courtesy California State Library.*

Contradictory decisions issued by the California Supreme Court from 1853 through 1858 or 1859 reflected the diversity of mining. In the hydraulic mining districts, prior appropriation quickly predominated. But in some camps, small-scale placer mining survived throughout the 1850s, and there a species of riparian rights persisted. Other camps tried to balance both legal principles. District judges were elected, and they responded to local opinion. Personal safety and the widespread hostility to formal institutions of law left them little choice. In addition, mining communities paid far more attention to their own regulations than to court judgments. The state supreme court had little power to enforce its decisions during the 1850s, and judges worried that Congress might overturn any decision that did not fairly represent the aspirations and needs of the miners.³³

The success of prior appropriation was cultural as well as economic. In the California of the 1850s, fear of concentrated power and the demand for home rule reinforced the traditional American disdain for bureaucracy and centralized planning.

Prior appropriation did not require an expensive government bureaucracy to administer, nor did it require the legislature to pass elaborate statutes. It let the economic actors themselves set public policy, as they had dictated the land policy of the United States since the 1780s. It was based on thoroughly familiar principles, and no institution of government had to decide who would have access to water, where it would be used, or for what purpose. Prior appropriation assumed that when disputes arose they were better left to the courts, which, of course, represented the interests of litigants rather than the public as a whole. Only in the second half of the nineteenth century would the private corporation replace government as the chief instrument of tyranny in the minds of most Americans. It took nearly a decade for prior appropriation to triumph in the mining districts and even longer to take hold in agriculture. In the 1850s and 1860s, irrigation was largely confined to southern California. In that part of the state, the principle of community control over water, inherited from the Mexican period, prevailed. That system recognized a right to irrigate certain tracts of land, but no absolute grants to specific quantities of water. Then, in the 1870s, the Southern Pacific Railroad built through the San Joaquin Valley and over the Tehachapi Mountains into Los Angeles, and land and water companies proliferated. In the 1850s and 1860s, the valley had been devoted to cattle ranching and dry farming, but now irrigation communities grew up around Fresno, Modesto, and Bakersfield. Parts of the valley had been included in Mexican land grants and had never been part of the public domain. Therefore, passage of the Desert Land Act in 1877—which mandated prior appropriation on government lands and excluded all other water rights—had no effect in much of California. The increase in irrigation and a drought at the end of the 1870s resulted in conflict between those who held traditional riparian rights and those who claimed the right to divert water under prior appropriation. Simultaneously, the region south of the Tehachapis experienced a population boom and the systems of community control—which held water in common for the community—came to be seen as impediments to speculation in land and to economic growth.³⁴

Prior appropriation was no more rational or efficient than riparian rights, nor was it better suited to all parts of the arid and semi-arid West. In California, the courts allowed riparian owners to irrigate, and riparian rights were well suited to California in the years before large storage reservoirs made massive diversions possible. In the 1870s and 1880s, technology restricted irrigation to the land adjoining streams. That land was alluvial and highly productive. It was also the cheapest to irrigate and allowed the maximum amount of water to seep back into the stream. Moreover, since riparian rights were correlative—with no existence apart from each other—they could be expanded or contracted according to fluctuations in the water supply. The major “weakness” of the riparian right was that it did not promise an absolute quantity of water. As capital looked for new investment opportunities in the

870s and 1880s, as it poured into speculative land and water companies, it demanded that prior appropriation be extended to irrigation.

At the end of the 1870s, several contests over agricultural water rights reached the California Supreme Court. The court consistently ruled that riparian rights took precedence outside the public domain.³⁶ The land and water companies hoped to persuade the legislature or state supreme court to abandon riparian rights, as the courts had in other western states. In 1886, a special session of the legislature accomplished little, but the biggest battle came from 1881 to 1886, after Henry Miller, Charles Lux, and other riparian claimants in Buena Vista Slough at the end of the Kern River filed suit against James B. Haggin and his associates in the Kern County Land and Water Company to block diversions under prior appropriation near present-day Bakersfield. The plaintiffs argued that nature intended the Kern River to stay in its natural channel and that the value of their land depended on the water remaining there. No one, they insisted, had the right to claim water for nothing and carry it a great distance to dry land when doing so destroyed the property rights of downstream riparian owners. The court decided that abolishing riparian rights would replace one monopoly with another, forcing those whose water rights had been confiscated to purchase water from those who had taken it away, but there was surprisingly little enthusiasm for state ownership or regulation of water rights.³⁷

Ultimately, the "California Doctrine," which embraced both riparian and appropriative rights, stood in stark contrast to the "Colorado Doctrine," which recognized prior appropriation exclusively.³⁸ Kansas, Montana, Nebraska, the Dakotas, Oregon, Texas, Washington, and Oklahoma followed California, and Utah, Wyoming, Arizona, New Mexico, and Idaho followed Colorado. With the exception of Montana, all states that accepted the California Doctrine contained both humid and arid sections. Diverse climates and economies help explain how water rights evolved in the West. Still, whether the evolution of western water law would have followed the same course had mining not preceded agriculture is a tantalizing and enormously significant question.

Most legal scholars and historians have lauded prior appropriation as a fair and equitable way to distribute a scarce water supply. Walter Prescott Webb proclaimed that "history . . . makes clear the necessity of . . . prior appropriation." In 1935, Carey McWilliams lauded appropriation as "the fairest and most economical and the fullest use of an inadequate water supply," and in 1953 Wallace Stegner declared it "an essential criterion" in an "irrigating country."³⁹ With most of California's best water lawyers enlisted on the side of prior appropriation, the possibility that the riparian doctrine or the system of community control in southern California had anything to offer Californians eager to build stable communities of small farmers was all but forgotten by the end of the nineteenth century. Yet, there was a dark side to prior appropriation. In large parts of the Central Valley, it permitted a handful of agricultural

corporations to dominate the water supply. Instead of efficiency, it promoted waste, as each claimant used as much water as possible to "stockpile" the largest future supply. It also led to expensive and protracted litigation, as the earliest water users claimed far more water than they could use. Finally, because rights acquired under prior appropriation could be condemned only at great cost, it prompted the construction of expensive new water projects in the twentieth century. The easiest answer to water shortages was to augment the existing supply, not to reallocate it or place restrictions on its use.

CONCLUSION

When the Public Lands Commission surveyed western mining in 1880, it observed that the "California common law," to use the commission's phrase, had become the law of mining west of the Missouri River. California miners had scattered throughout the West, carrying with them the legal principles worked out in the 1840s and 1850s.³⁹

Some historians have argued that free mining resulted more from congressional neglect than from a positive policy choice. California was far removed from the rest of the nation, and slavery and sectional issues preoccupied the central government during the 1850s. Since the public domain still contained plenty of good agricultural land in the Midwest, and since California's arid and semi-arid climate initially seemed unsuited to agriculture, mining represented the state's only hope for economic development.

Nevertheless, the public domain belonged to all the people of the United States, and Congress had good reason to regulate mining on government land. California's mines produced more than \$300 million from 1849 to 1854. In each of those years, the gold output matched the federal currency in circulation during the mid-1830s. The dramatic increase in the money supply had far-reaching implications for the American economy. "An era of inflation was thus inaugurated," historian Roy Robbins has written, "which was to have a tremendous effect on the whole country. For every addition of a million dollars in gold three or four million dollars in paper would be issued by existing banks, and it was expected [in the mid 1850s] that a new crop of banks would appear." The massive increase in precious metals inflated the prices of real estate, stocks, and commodities. This was reason enough for Congress to pay close attention to mining developments in California.⁴⁰

Instead, Congress ignored the Gold Rush's financial implications and deferred to the customs of the country. The mining camps have long fascinated students of American history, in part because they can be viewed in two very different ways. On the one hand, they represent the mythical "state of nature." More than a new beginning, they could be seen as a perfect or idyllic state where the essential goodness

and rationality of human beings flowered unrestrained by the weight of history, the corruption of flawed institutions, the power of established elites, and the iniquities of laws designed to protect vested interests rather than to ensure equal opportunity. It was a world that permitted a return to "first principles" and the purest form of self-government. Charles H. Shinn, one of the foremost nineteenth-century champions of mining camp law, described the codes as "the only original contribution of the frontiersmen of America to the art of self-government."⁴¹ Here was "popular sovereignty" in action.

The idyllic portrayal of mining camp law came to dominate California history, but not without protest. For example, Josiah Royce thought that the mining camp was closer to Thomas Hobbes's state of nature: a cruel, brutal, and "lawless" place bereft of civilization and beyond the institutions and constraints that tamed the worst impulses in human nature. Royce saw the miner as a squatter who created a smoke-screen of "natural rights" to obscure predatory self-interest. The mining camps stimulated the endemic fear of law, judges, and lawyers rooted deep in American culture. Not only did the mining codes encourage ethnic and racial hatreds and "Judge Lynch," they further undermined faith in formal institutions of government, which for decades after the Gold Rush remained weak throughout California and the West.⁴²

Long after the formal legal structure had been erected, miners were loath to accept direction from either the courts or legislature. For example, beginning in 1851, fledgling mining companies began to hold conventions to discuss uniform codes. The need for standardization was particularly great in the quartz or shaft mining districts. As litigation over the boundaries, sale, and speculation in claims increased—to name but a few sources of legal action—formal legal institutions began to take precedence. As a result, the state legislature heard shrill protests from the mining districts. Therefore, it refused to authorize a convention to draft a uniform mineral law, believing that no such code could meet the varied conditions in different parts of the state. Laws should come from the bottom up rather than the top down, the lawmakers concluded, and while Nevada, Sierra, and Tuolumne counties adopted uniform quartz mining laws in the late 1850s, the counties that relied on placer mining resisted them.⁴³

Mining towns were not so much settlements as temporary encampments, and people who invested nothing more than their labor in a place were likely to treat it with contempt—particularly because they were more often than not disappointed in the search for wealth. The miners denied the right of local governments to tax either mineral claims or the product of the mines to help pay for public services, and when they moved to cities, towns, and farms, they carried with them their suspicions of government and their resistance to any limitation on economic freedom.

Free mining led to the rapid exploitation of easily accessible placer deposits and



When the photographer Carleton Watkins visited the town of Mariposa in 1859, it had a population of perhaps five hundred souls, chiefly miners. Though most Argonauts returned home after the most virulent symptoms of the gold fever had passed, some stayed on—sojourners become settlers—and contributed to the growth of stable communities in the Mother Lode country. In the distance, *left of center*, outlined against the chaparral-clad hills is the Greek Revival county courthouse constructed in 1854. Still in use today, it is the oldest in the state. *California Historical Society, FN-24676.*

a highly transient population. The discovery of the Comstock Lode in western Nevada at the end of the 1850s, and mining strikes in other parts of the West during the Civil War, depopulated large parts of California. John S. Hittell, one of California's most prominent writers in the 1860s, suggested that the state's future depended on the sale of mineral lands. "Ownership makes the people permanent," he observed, "and induces men to get wives and comfortable homes; and permanence and the possession of families and homes make them temperate, economical, industrious and careful of their reputations: Without homes, families and permanent

residence, they must be intemperate, idle, wasteful of their money, regardless of their reputations, and without hope of improvement in the future. This is unfortunately the condition of many of the miners of California at the present time." If the mineral lands were sold, Hittell reasoned, California would attract permanent settlers, not vagabonds. Its institutions of government would become more stable, and its wealth would be systematically and efficiently developed. Moreover, until the mineral lands passed into private ownership, California agriculture—the state's true hope for future growth—would languish.⁴⁴

Most miners did not agree with Hittell, but the attitudes and values of the mining camp had a profound effect on agriculture. During the 1850s, the state's best arable land was contained in large Mexican grants. It took a special commission and the courts many years to confirm or deny those grants. Meanwhile, state law favored mining over farming. "The Legislature of our State in the wise exercise of its discretion has seen proper to foster and protect the mining interest as paramount to all others," the California Supreme Court observed in 1855.⁴⁵ The logical place to create farms was near markets, and the mining camps provided the largest markets outside the state's cities. Yet a long-established principle of American land law held that preemption did not apply to mineral lands. Those "farmers" who staked out 160-acre farms on government land within the mineral districts were often suspected of using preemption to secure larger mineral claims. Miners routinely invaded farms and destroyed crops, and initially the law required no indemnification.⁴⁶

The extent to which agriculture in the Sacramento Valley was structured by the dominance of free mining is uncertain. Until the court decision against hydraulic mining in 1884, the state's laws did more to encourage the rapid exploitation of mineral wealth than the sustained exploitation of farmland. Not surprisingly, the type of agriculture that grew up closest to the mines was wheat, rather than fruit, nuts, or vegetables—all of which required skill, labor, and a commitment to the land.

Long before Frank Norris published *The Octopus* (1901)—which characterized wheat farming as another form of mining—California agriculture had taken on a distinctively speculative appearance. In 1872, the *Overland Monthly* published an article that compared farming in California and the rest of the nation. In the Golden State, it found, farmers did not work their land steadily; most simply sowed and reaped wheat. They seldom planted trees, leaving their farms with a desolate look. With the exception of wheat and pork, everything eaten on these farms was imported, often from outside California; there were no gardens. No quarters were built for farm laborers, and villages were rare; indeed, many wheat farmers lived in the city and had little or no association with the land. These agriculturalists made no effort to diversify crops and raise rice, oranges, and grapes—which would have permitted them to use the land more intensively and live on it all year around. The article did

not mention that free mining had conditioned Californians to look at all land solely in terms of quick wealth. The same lack of attachment to place, the same lack of community, the same shortsightedness, and the same obsession with profit characterized both mining and agriculture, at least until horticulture gained in popularity during the 1870s and 1880s. The family farm never had a chance in California, and the persistent legal and cultural power of the mining industry helps explain why.⁴⁷

Free mining also had a profound effect on California politics. California was a huge state that would have been difficult to govern under any circumstances. But the dominance of mining exacerbated sectional tensions. Conflicts erupted between northern and southern California, between mining and agricultural counties, and between San Francisco—where much of the capital for mining was raised—and flood-prone interior communities, such as Sacramento and Marysville, along the state's major rivers. In the United States, a fundamental constitutional principle was that those who paid taxes should share the burden and benefits equally. But ranchers and farmers in the southern counties—where most land was privately owned—paid relatively heavy taxes while residents of the mining districts paid little. The mining counties had the strongest representation in the state legislature while the counties dominated by agriculture and grazing paid most of the bills—such as the cost of maintaining a judicial system concerned mainly with conflicts over mineral claims.

In 1852 and 1853, the legislature debated the creation of a new state from southern California. In 1859, it actually approved division, and residents of Los Angeles, San Bernardino, San Diego, Santa Barbara, San Luis Obispo, and Tulare counties ratified that decision by a three-to-one margin. Congress refused to ratify the plebiscite, however, and the Civil War made the decision a dead letter. Still, for decades after the golden years of the mining industry had passed, the mining counties enjoyed disproportionate power in the legislature. For example, the 1880 legislature imposed a statewide tax to build restraining dams to capture hydraulic mining debris that washed down into the Sacramento Valley. Southern California claimed that this was yet another scheme to transfer the tax burden from mining to ranching and agriculture.⁴⁸

Even more important, the Gold Rush and free mining strengthened the assumption that nature existed solely for profit. Never had the land been used so ruthlessly, with so little heed of tomorrow. As one observer of hydraulic mining in Montana wrote in 1881, "hydraulic, or even sluice mining is not an aesthetic pursuit; the regions where it is practised may be, before the miner's advent, like the garden of the Lord for beauty; but after his work is completed, they bear no resemblance to anything, except the chaos which greeted the eye of the seer at the dawn of the Mosaic record of the rehabilitation of the earth for the use of man. . . . It is impossible to conceive of anything more desolate, more utterly forbidding, than a region which has been subjected to this hydraulic mining treatment." Historian Duane Smith has written

hat "all this development did not take place without disturbance—environmental, personal, economic, political, and social. Mining left behind gutted mountains, dredged-out streams, despoiled vegetation, open pits, polluted creeks, barren hillsides and meadows, a littered landscape, abandoned camps, and burned-out miners and the entrepreneurs who came to mine the miners." Only direct injuries to property owners restrained mining. The contamination of water supplies and destruction of fisheries attracted little attention. Free mining produced great wealth, but it came at a high price.⁴⁹

NOTES

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2. W. C. Jones, ed., *Commentaries on the Laws of England*, vol. 1 (San Francisco: Bancroft-Whitney, 1916), 240.

3. Ernest S. Osgood, *The Day of the Cattleman* (Minneapolis: University of Minnesota Press, 1929), 182–83.

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9. Samuel C. Wiel, "Public Policy in Western Water Decisions," *California Law Review* 1 (November 1912): 12-13, and Charles W. McCurdy, "Stephen J. Field and Public Land Law Development in California, 1850-1866: A Case Study of Judicial Resource Allocation in Nineteenth-Century America," *Law and Society Review* 10 (Fall 1975): 264.

10. For example, in June 1830, the lead miners of Dubuque, Iowa, gathered and appointed a five-man committee to draft a mining code. See Davis, *Historical Sketch of the Mining Law in California*, 18.

11. On the mining codes, see Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (Cambridge, Mass.: Harvard University Press, 1947), 210-39; John Walton Caughy, *The California Gold Rush* (Berkeley: University of California Press, 1975), 228-29; J. Ross Browne, *Resources of the Pacific Slope* (New York: D. Appleton, 1869), 235-47; Gregory Yale, *Legal Titles to Mining Claims and Water Rights in California, Under the Mining Laws of Congress of July, 1866* (San Francisco: A. Roman, 1867), 73-88; Charles J. Hughes, "The Evolution of Mining Law," in *Report of the Twenty-Fourth Annual Meeting of the American Bar Association Held at Denver, Colorado, August 21, 22, and 23, 1901* (Philadelphia: Dando Printing and Publishing, 1901), 330-31.

12. The quote is from "Report on Civil and Common Law," February 27, 1850, in *California Reports*, 1850, 588-89.

13. *Jennison v. Kirk*, 98 U.S. 453 (1878), at 457. Many cases decided by the California Supreme Court agreed with Stephen J. Field's interpretation of mining camp law. In particular, see *'49 and '56 Quartz Mining Co.*, 15 Cal. 152 (1860), at 161, and *Morton v. Solambo*, 26 Cal. 527 (1864), at 532-33.

14. *Hicks v. Bell*, 3 Cal. 220 (1853); Stephen J. Field, *Personal Reminiscences of Early Days in California, With Other Sketches* (Washington, D.C.: Privately printed, 1893), 59, 90, 154-55; Ellison, *California and the Nation, 1850-1869*, 67-69.

15. *Congressional Globe*, 32nd Cong., 1st sess., 1851, appendix, p. 4.

16. For discussion of the Julian bill, see *Congressional Globe*, 38th Cong., 2nd sess., House, February 9, 1865, pp. 684-87. Also see Swenson, "Legal Aspects of Mineral Resources Exploitation," in Gates, *History of Public Land Law Development*, 714-17; and Yale, *Legal Titles to Mining Claims and Water Rights*, 10.

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21. Robert L. Kelley, *Gold vs. Grain: The Hydraulic Mining Controversy in California's Central Valley* (Glendale, Calif.: Arthur H. Clark, 1959), 45-46.

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25. *Woodruff v. North Bloomfield Gravel Mining Co.*, 18 Fed. 753 (1884), at p. 807.

26. Kelley, *Gold vs. Grain*, 229-42; Donald J. Pisani, *From the Family Farm to Agribusiness: The Irrigation Crusade in California and the West, 1850-1931* (Berkeley: University of California Press, 1984), 162-75.

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35. See, for example, *Creighton v. Evans*, 53 Cal. 55 (1878); *Pope v. Kinman*, 54 Cal. 5 (1879); and *Anaheim Water Company v. Semi-Tropic Water Company*, 64 Cal. 185 (1883). On water

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45. *Fitzgerald v. Urton*, 5 Cal. 308 (1855), at 309.

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48. William Henry Ellison, *A Self-Governing Dominion: California, 1849-1860* (Berkeley: University of California Press, 1950), 167-91; Yale, *Legal Titles to Mining Claims and Water Rights*, 89-98.

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Mother Lode for the West

California Mining Men and Methods

Duane A. Smith

High in the Colorado Rockies, snow hampered the little prospecting party as it moved slowly up a gulch from the Arkansas River. The men dug deep into gravel on this cold morning in April 1860 and called on the oldest and most experienced member of their party to pan the sand. Veteran Forty-niner Abe Lee obliged, while the rest of the group gathered around a fire to warm themselves. The rest of the story became legendary.

Noticing Lee peering intently into his pan, one of the party shouted to him, "What have you got, Abe?" "Oh, boys," he yelled, "I've just got California in this here pan." Thus the gulch and a brand new mining district had a name, California. Abe Lee had never had such luck in California, nor would he again, although he would be around long enough to be marginally involved in the later bonanza Leadville silver rush that occurred only a few miles from his 1860 discovery.¹

This story was repeated many times throughout the West, as ex-Californians took their skills and experience over deserts and mountains in their search for gold. Abe Lee and his friends were part of a worldwide movement, yet they probably never took the time to consider, or comprehend, the California mining contribution. Nor was it only people, it was everything that could be considered part of mining—from the legend of life in the mining camps to equipment that is still being used.²

Fifty years after the 1848–49 rush, Alaska and the Canadian Yukon exploded on the mining scene. Maybe there were not many Forty-niners there, but their legacy arrived and stayed well into the twentieth century with the clanking dredges. Mining historian Clark Spence described it concisely: "Thus Alaska gold dredging was part of a global industry—one that looked to California for inspiration, technology, skilled labor and sometimes capital."³ The same story, sans dredges, had been repeated scores of times earlier.



California Argonauts pause from working their claim to have their picture taken sometime in the early 1850s. The skills and tools and techniques developed in the mines of the Golden State were carried throughout the American West—and indeed, the world—by prospectors who joined in the successive rushes that for half a century kept alive the dream of a new El Dorado just over the horizon. *Courtesy California State Library.*

Not that Californians were always welcome. In 1853, they were not greeted eagerly to the Australian gold rush. As historian Jay Monaghan explained, “Only a small proportion of the people coming to Australia were Californians. But Californians’ bad reputation, lawlessness, revolutionary background, aggression against Mexico, and crusading determination to save the world from mobocracy by force if need be, tainted all Americans, just as the few ex-convicts from Australia had tainted all immigrants in San Francisco from down under.”⁴ It was a two-way street in many ways. After they returned home, Australians who had gone to California helped open the gold fields in New South Wales. Gold fever is universal.

These three examples display California’s worldwide impact, but as California would give to the world, so had the state itself also borrowed from several centuries of worldwide mining experience. The cosmopolitan California rush brought together miners and mining people from throughout Europe, Asia, and the Americas.

Germans, Latin Americans, Cornishmen, Mexicans, Welsh, English, French, Spaniards, Italians, and Chinese, as well as lead miners from Wisconsin and gold miners from Georgia and North Carolina, all contributed. They helped the "pilgrims" learn the basic rudiments of mining. Mining laws, methods, mining and milling equipment, and ideas arrived along with the people in those exciting days of 1848 and 1849. Indeed, had these early Californians but realized it, many methods they used had been described (in Latin) and illustrated in 1556 by a German scholar who wrote under the name of Agricola. To these they added innovations derived from their own experiences, including hydraulicking, dredges, and water laws. This mining heritage was exported to the whole world.⁵

By the mid-1850s, the glory days of "poor man's diggings" of placer gold were beginning to pass in California. The pattern that would be repeated throughout the West had occurred. Companies and corporations now mined on a large scale; it took money to make money in mining. Already, around Grass Valley and Nevada City, hardrock mining, or burrowing into the ground after gold found in combination with other minerals, was taking place. This took skill, equipment, and finances that the average Californians did not have. They stood ready, however, poised to stampede to any new El Dorado that promised to be another California. In the generations that followed, they and their descendants did just that. Off they went, prospecting up nameless creeks, digging into any mountain that looked promising, crossing waterless deserts, and wandering on over the next ridge into any valley that seemed more enticing. With them went California's mining heritage—both placer and hardrock.

The miners themselves often remain nameless. Average folk they were, who caught mining fever and chased their dreams into a lifetime of "might-have-beens" or "used-to-bes," though these cruel epitaphs do not tell the whole story. The itinerant miners opened many parts of the West and the world, built camps and towns, created jobs, encouraged settlement, promoted the places they went, helped finance developments far beyond mining, and did more by their incessant wanderings than they ever have imagined. They changed the course of national and world history only to be buried in forgotten graves near where they toiled so enthusiastically and tirelessly. As early mining historian Charles Shinn wrote in 1884, "the migratory impulse circling outward from Sutter's ruined mill had a meaning for lands outside of North America. It ultimately became of world-wide influence."⁶

Why did they go, when there was still gold in California, though much less than they had dreamed of? Maybe it is most clearly expressed in a song about the rush to Australia. For whatever reason, miners everywhere wrote more songs that concerned California (in whatever way) than all the other mining excitements combined:

Farewell, old California, I'm going far away,
Where gold is found more plenty, in larger lumps, they say;
And climate, too, that can't be beat, no matter where you go—
Australia, that's the land for me, where all have got a show.⁷

Off they went with "their washboard on their knee."

By the end of the 1850s, the impact of former miners of the Golden State was already clearly shown. California dominated the first decade of mining in the West. Only a few small gold discoveries of local significance, primarily in Washington, Oregon, Arizona, and Nevada, challenged this dominance. Then in the spring of 1858 came news of gold discoveries along the Fraser River in British Columbia. Fraser River fever swept San Francisco and the Mother Lode country.

Perhaps more than thirty thousand rushed to the new El Dorado; we will never know the exact numbers. They commandeered anything that would float and sailed northward. Little mining camps soon sprung up, featuring a high cost of living. They tried California mining techniques only to find the river high because of melting snows; not until September would conditions be favorable. There was gold, just not as much as reports promised, and most rushers soon returned to California discouraged, many losing every penny they had gathered for the trip.⁸

Amazingly, they seemed not to be deterred by this and the earlier Kern River "humbug." The year 1859 witnessed two more major rushes, to Nevada and Colorado, in which Californians and their experience played major roles. Never again would there be such national excitement nor two major mining rushes at one time; considering all that was occurring in the United States that year with the sectional and slavery questions, 1859 would seldom be equaled in American history.

Of the two 1859 rushes, Californians particularly dominated Nevada's Comstock. "Nevada is the child of California," San Francisco's *Daily Alta California* (February 3, 1872) could truthfully boast. Briefly, the early Comstock story ties it completely to California. Since 1850, small placer deposits had been worked along the Carson River drainage, particularly in a place called Gold Canyon. A few Californians from west of the Sierra drifted in and out of the unpromising area, but it remained in the backwater of mining. Finally, with California and Gold Canyon placer deposits declining, prospectors moved into the mountains and early in 1859 found several deposits that they considered to be silver. Traveling over to Nevada City and Grass Valley, they had the ore assayed. The results confirmed their expectations. The ore was indeed rich in silver. They had discovered the famous Comstock silver lode.

Nevada County, one of California's most prosperous mining counties and famous for its progress in quartz and hydraulic mining, buzzed with excitement. Off went the curious, the hopeful, the investors, and many experienced mining men. They



Hardrock miners enter the hoists of the Savage Silver Mining Works on the Comstock Lode, Nevada Territory. Photographed by Timothy O'Sullivan, who illuminated the scene in a pioneering experiment with burning magnesium wire, it is one of several images made in February 1868 at the request of the director of the Fortieth Parallel Survey. O'Sullivan's pictures, which also included views of the Gould & Curry Mine, were the earliest photographs to show the interior of American mines and to document the reality of hardrock mining. *Courtesy Bancroft Library.*

were soon joined by other Californians, who rushed to the once-isolated Nevada diggings (at the time still in western Utah). This was almost exclusively a California rush, since the rest of the country to the east was caught up with the Pike's Peak excitement, which received even more national headlines and obviously was nearer "to the states."

The miners needed every bit of mining and milling experience, financial resources, and general knowledge in their command, because never had Californians seen anything like the Comstock. They had never encountered complex silver ore before or mined under such difficult conditions. Mining costs soared, but so did profits, beyond the best the Forty-niners had ever seen. The Comstock boomed from 1860 into 1864, helping to finance the Civil War effort for the North, and then

declined. Never losing faith, a few men kept plunging their mine shafts deeper, and in 1870 the "Big Bonanza" era opened. The Comstock and its principal town, Virginia City, again dominated the mining world. Before the bonanza days ended in the late 1870s, the Comstock made millionaires, created legends, advanced mining and smelting technology, and became the yardstick against which other districts would be measured. Admittedly incomplete production figures credit the Comstock from 1859 to 1881 with \$292 million in silver and gold production.⁹

From start to finish, California's contributions proved critical and essential to the Comstock's development and prosperity. Nor was it all a one-sided street, as H. Grant Smith, lawyer and Comstock miner in his youth, explained. The Comstock "lifted California out of a disheartening depression. It rejuvenated San Francisco . . . the entire State shared in the benefits. California was the source for all supplies, from fruit to mining machinery, and every industry thrived." Also, many of the newly enriched Comstock investors were, or would become, San Franciscans.¹⁰

As much as California benefited, the Comstock gained even more from the relationship. That ever-observant Comstock reporter and writer, Dan De Quille (the pen name for William Wright), chronicled the early impact of Californians in his classic *The Big Bonanza*. They set the stage, kept the district open, and finally discovered the silver and founded the early mines. The early roads into the district all were built with California money, labor, and determination. Californians populated the early Comstock; perhaps ten thousand of them, "of all sorts and conditions," came in 1860 alone. When the Comstock miners ran into problems with the rotten rock and the huge silver veins in 1860, it was a young German mining engineer (who had been in California since 1851), Philip Deidesheimer, working in Georgetown, California, who came up with the square-set timbering system that allowed mining to continue. Square-set timbering would be an important technical feature in mining for years.¹¹

Californians touched every aspect of Comstock life. As H. Grant Smith wrote in a romantic vein, "practically all of the men who came to rule the mines, the business, and the politics of Nevada had been youthful, adventurous, romantic California pioneers, and were in the prime of life; men of exceptional ability and resourcefulness, tried by hardship and ripened by experience." California and Nevada pioneer C. C. Goodwin concurred: "California drew to her golden shores the pick of the world, Nevada drew to herself the pick of California."¹² California merchants established Gold Hill's and Virginia City's major stores, operated freighting and stage lines, started newspapers, promoted the region, and even imported the first theatrical companies. They literally infused the spirit and flavor from the mining camps of California into what became the first great mining town in America's history, Virginia City. No California camp captured the attention of the American public like Virginia City did in its glory days of the 1860s and 1870s. Even budding miner and

newspaper reporter Samuel Clemens ventured out there and sympathetically and humorously described the city as he experienced it in the 1860s in his classic Comstock account, *Roughing It*: "It claimed a population of fifteen thousand to eighteen thousand, and all day long half of this little army swarmed the streets like bees and the other half swarmed among the drifts and tunnels of the 'Comstock,' hundreds of feet down in the earth directly under those same streets. Often we felt our chairs jar, and heard the faint boom of a blast down in the bowels of the earth under the office."¹³ It was those people under Virginia City who benefited mightily from California. The state contributed what experience it had in underground mining, basically from the Grass Valley and Nevada City mines. Mining methods, experienced miners (especially some Cornish), timbering, corporation development, and equipment traveled over the Sierra, even if they did not always meet the specific needs of the Comstock.

Rossiter Raymond, an expert mining reporter and also the U.S. Commissioner of Mining Statistics, devoted a whole chapter of his 1869 report to the manufacture of mining machinery in California. He praised the San Francisco mechanical engineers, foundries, and machine-shops for "successfully meeting" the needs of broader Pacific slope mining: "Their work is characterized by great boldness, independence of precedent, ingenuity and originality; and they to-day furnish some of the best machinery in the world for certain departments of the art of mining. . . . California not only manufactures mills and machinery for the Pacific slope, for Nevada, Idaho, Oregon, Washington, and Arizona, but exports to British Columbia, Mexico, Central America, South America, Colorado, North Carolina, and, to some extent, to Australia." He went on to praise California: "There is no country where so much money and effort has been expended in so short a time in experimenting with, and perfecting, the various machines used in mining."

Raymond elaborated in some detail the types of mills, tools, and machines that California was exporting to the Comstock and other out-of-the-state mining regions. The variety is amazing. These included various hydraulic mining equipment that had been pioneered in California in the 1850s, although the idea dates back at least to Roman times. The hand tools included thirty-one different mining picks and hand-drills and hammers. San Francisco manufactured explosives, including "giant powder," or dynamite, after 1867. Already they were experimenting with rock-drilling machines. Mine cars, rails, pumping engines, wagons, steam engines, hoisting machinery—the list is almost endless.

California stamp mills, according to Raymond, had become world famous, "superior to any other, and are regarded as models to be followed," and the state's manufacturers stood in the forefront of many new milling and smelting machines and ideas. Pans for grinding and amalgamating, copper-plates for saving gold and quicksilver, breakers, and ore-dressing and concentrating machines were a few that



The most famous of all San Francisco foundries and machine shops, the Union Iron Works at First and Mission streets, sometime in the late 1860s. Founded in the Gold Rush by the Donahue brothers, the company established its expertise in the fabrication of mining machinery at an early date. In the 1870s, during the heyday of the Comstock Lode, the works employed nearly two hundred molders and machinists and could pour more than thirty tons of molten iron every two and one-half hours. *Courtesy California State Library.*

manufacturers and foundry men sent throughout the mining world. Raymond did admit that "it may be said there has been a great waste of material and money in the headlong, blundering way in which the progress has been made." The outcome justified the means, however, in his opinion: "the result on the whole is more satisfactory than it would probably have been by this time, if every problem had been the subject of slow and careful deliberation."¹⁴

Pioneer California industrialist, English-born Andrew Smith Hallidie, for example, made his own contributions—wire rope and the concept of the tram. He arrived in California in 1852 and four years later began manufacturing "metal rope" at American Bar, moving to San Francisco the next year. His cables became famous, and from them came the idea of the "endless moving rope" that proved "to be of practical advantage for freight on open hillsides and in the mines." Certainly by 1871, he was building a tram in Nevada. The *Engineering and Mining Journal* enthusiastically hailed the innovation: "The wire tramway seems calculated to perform work that can scarcely be expected from any railway with two rails, no matter how narrow the gauge." Hallidie later built trams in other western states and mining men hailed them as "the cheapest way to move ores on steep mountain sides."

In the Rocky Mountains, the idea would be developed and improved. California-type trams would eventually be found throughout the world. Noted mining engineer and reporter T. A. Rickard, when he toured Colorado's San Juan mining district in 1903, called them "great spider's webs . . . spanning the intermountain spaces."¹⁵

California mining produced two products that helped western mining, milling, and smelting. Borax, used in metal fluxing, assaying, and a variety of other ways, was sold throughout the world. Quicksilver (mercury), with its ability to seize upon and amalgamate gold dust, and to a lesser degree silver, proved very important to the placer miner and mill and smelter man. California's New Almaden quicksilver mines were America's most extensive. They shipped quicksilver around the West and overseas, an important contribution to the success of mining, milling, and smelting.¹⁶

Life at company-run New Almaden was quite different from other California camps, as artist and writer Mary Hallock Foote described in her journal; she pointed out another California contribution, in describing some of the people with whom her engineer husband, Arthur, worked. They were an "unmatchable group on the West Coast who were not only great engineers whom it was an education to work under, but remarkable men, cultivated, traveled, original." These men included James D. Hague, Louis and Henry Janin, Hamilton Smith, and William Ashburner. They gained experience in California mining and traveled throughout the world during their careers. San Francisco was the headquarters for many mining engineers, including Hague.¹⁷ Along with others, like Rossiter Raymond, who has been called "the single most influential person in shaping the development of mining engineering into a respected profession," they were the ones who took mining from the school of "hard knocks" to a professionally guided industry.

British engineer and author J. H. Curle concurred. He wrote in 1905 that "there is to be had in San Francisco about the best scientific and practical mining education in the world." Curle, who pioneered in using the automobile in mining engineering, praised the contributions of these Californians:

The men who are being turned out from here usually begin their careers on the Mother Lode mines. With this groundwork, and with the practical knowledge they then gain of special branches of mining, as the use of big timbers, close concentration, electric and water powers—and, more than all, the treatment of low-grade ore, where economy is essential—it is not to be wondered at that these men soon become absolutely proficient. And so we find the young California engineer, or mine manager, going to-day to take up well-paid mining positions in Australia and South Africa.¹⁸

Even the legendary "honey bucket" owed a debt of gratitude to California. The question of human waste and sanitation in the mines had long troubled miners and owners and resulted in at least one California study about disease and sanitary con-

ditions. The use of abandoned rooms, drifts, and other out-of-the-way places was not conducive to good health. One solution advanced was an "underground privy car" that furnished a "practical and economical remedy." The Bureau of Mines eventually published a pamphlet on underground latrines, complete with drawings and instructions on how to make a "honey bucket." It concluded by emphatically stating that, "if the cars are kept clean and are reasonably convenient, the miners should be compelled to use them." Given the independent nature of miners, such advice was probably not always heeded.¹⁹

The California contribution did not end with machinery. Placer gold did not have to be worked in a milling process; ore coming from the hardrock mines had to be milled or smeltered and the gold and silver saved. This took experiments, skill, equipment, and financial backing. Initially, Nevada mine owners picked out the richest ore and, incredibly, sent it to England (Swansea, Wales) to be smelted. The lower-grade ore awaited local treatment. The solution came with the work of Almarin Paul, veteran California mining man and owner of a quartz mill in Nevada City. Throughout the winter of 1859-60, he experimented with ore. By the spring of 1860, he decided to build a stamp mill to crush the ore on the Comstock. He ordered machinery from San Francisco foundries, purchased lumber, and spent an "extraordinary" amount on transportation expenses. Paul used the California stamp mill that by 1860 offered a "reliable basic model that was capable of enlargement and further improvement to meet Comstock needs." Because the Comstock ore was basically silver and gold, it could be treated much like California gold ores. That gave Paul and other California quartz men a remarkable advantage as they pioneered milling on the Comstock. Improvements and modifications had to be made, and eventually Paul developed what became known as the "Washoe pan process," or the "Washoe pan amalgamation" process. This mechanical and simple chemical process would be transferred throughout the world wherever similar ores were found.²⁰ That pattern would be repeated with many Comstock ideas, inventions, and techniques, as Comstock miners and mining engineers migrated throughout the West and the world.

Because of these developments, and others that followed in the 1870s, San Francisco emerged as the "queen city" of a vast inland mineral empire. Combined with all of California, it was the source of leadership, supplies, mining equipment, and capital investment for a region that stretched from British Columbia to the northern provinces of Mexico and as far east as the Rocky Mountains.

California money underwrote much of the early Comstock developments, as experienced quartz miners and investors raced eastward to get in on the ground floor. Among the former was George Hearst, who had come west in 1850 and eventually mined at Grass Valley. He was one of the lucky ones who learned "in strictest confidence" of the wonderful silver assays from across the mountains. Hurrying



Montgomery Street, San Francisco, looking north from the Eureka Theater near the intersection with California Street, 1865. Along this thoroughfare stood most of the great financial institutions of the Golden State, which provided capital for investment in countless enterprises throughout the American West. John Parrott's Granite Block, *center*, was constructed in 1852 and over the years housed such leading banks as Adams & Co., Page, Bacon & Co., and Wells, Fargo & Co. *California Historical Society, FN-30961.*

across the range, he purchased one-sixth interest in the Ophir mine, the first bonanza. He sold his California property, borrowed money, and saw it all returned handsomely when the first shipment of silver ore paid \$91,000 above smelting and transportation costs. Those Ophir silver bars convinced Californians that the bonanza had been found. They also provided the basis for the Hearst fortune. Before he finished, his investments were strung across the mining West. Hearst's money would help develop both gold in the Black Hills of South Dakota and copper in Butte, Montana.²¹

More legendary were the accomplishments of four Californians, four poor Irishmen who became the "bonanza kings" of the Comstock—John Mackay, James Fair, James Flood, and William O'Brien. Their fight to control the Comstock, a fight among California investors, is one of the epic financial struggles in mining history. All had been miners in California except O'Brien, a small-time San Francisco businessman who eventually became a partner with Flood in a saloon. Mackay and Fair migrated to the Comstock, and ultimately the four teamed up.

The story does not start with them, however. Rather, it begins with William Ral-

ston, the speculative genius who in 1864 helped organize the Bank of California, which soon became the leading financial institution of the Far West. As the Comstock slipped from rich ore into *borrasca* (barren rock) that same year and the next, the bank suffered some serious overdrafts in its Virginia City branch. Ralston sent William Sharon, a shrewd, cynical, mining and stock speculator, to Virginia City as branch manager and agent. Behind these two stood most of the "big names" in San Francisco finance. Sharon recovered the money and became convinced that with some shrewd planning the bank could monopolize the district and reverse the Comstock's fortunes.²²

After some discussion and disagreement with the bank's board, the effort was started. Sharon's plan was simple in design, complex to carry out. First, he lent money at lower interest to milling, smelting, and mining companies; then, when they could not make a payment, he ruthlessly foreclosed on their properties. The mills and smelters fell first, and Ralston soon acquired a near monopoly and relocated the reduction works to the Carson River, with its water power. To reduce transportation costs, Ralston and Sharon in 1869-70 built the Virginia and Truckee Railroad, which tied into the Central Pacific at Reno. They then moved to control the companies that brought lumber and water to the Comstock. Criticism of the "bank crowd" and its various monopolies became legendary as Comstockers forgot that the bank's heavy investments during these disheartening years gave the district and Virginia City a needed boost and hastened the coming of the revival.

The challenge to Ralston and Sharon came from two groups, the "bonanza kings" and two other Californians, Alvinza Hayward and John Jones. Through a series of stock manipulations and trading, and inside information, the two groups broke the Ralston/Sharon monopoly in the early 1870s and brought in the era of the "Big Bonanza." In the end, both San Francisco and the Comstock benefited, although Ralston went bankrupt.

The four Irishmen gained control of the greatest of the Comstock mines, the Consolidated Virginia, and promptly became multimillionaires. Of them, Comstock historian H. Grant Smith said that "the members of the Firm played a fairer game than any other group in control of Comstock mines." They did more extensive "deep work" than any other group, and "they paid dividends whenever it was possible." Eighty million of the \$125 million in dividends paid by Comstock mines came from their mines.²³

San Francisco emerged as the mining investment and stock center of the Pacific Coast, and its money went throughout Nevada and elsewhere in the mining West. Not always were the investments successful. An interesting story is that of Adolph Sutro, who arrived in California in 1851 and joined the Comstock rush. His dream was to dig a tunnel under the Comstock to drain groundwater from the mines, provide a passageway for ore to the Carson River mills, and supply needed ventilation



The works of the Gould & Curry Mine at Virginia City, one of the many hardrock enterprises on the Comstock underwritten by California investors, 1865. *Courtesy Huntington Library, San Marino, Calif.*

for the increasingly hot, humid mines. Financial, technical, and political problems slowed him, and although begun in 1869, his tunnel did not reach the Comstock's main mines until 1878. He managed to depart a millionaire, but the tunnel never proved financially successful.²⁴

Financial manipulations such as these were not unique to California. California investors became masters of the "game," however, and would be found throughout the West in the years that followed. Companies incorporated in California were a trademark of many western mining districts. The same proved true of the emergence of San Francisco as a mining manufacturing center. California mining equipment

would be found everywhere, but especially in the states of Idaho and Nevada, both of which had direct transportation connections and multiple ties to California.

Comstock excitement and success created interest in the rest of Nevada. Prospectors, followed by miners and investors, scurried over desert valleys and mountains searching for the next Comstock. Along with them came more California experience and money. W. Turrentine Jackson observed that California capital moved into the Austin and Eureka districts, two of the most prominent Nevada strikes in the 1860s after the Comstock. Not every district so benefited. Treasure Hill in eastern Nevada, much to the dismay of locals, did not receive much California money. But mining methods developed in California and the Comstock were found there, and everywhere. California newspapers "boomed" each new Nevada discovery, and Californians' interest was whetted by each new "Comstock." "Ho for the Reese River [Austin]," they read, along with Pioche, Tuscarora, Belmont, and places between. For more than two generations, Nevada and California were close mining partners.

Eureka was typical of the pattern that occurred in Nevada. There, California money and experience helped develop transportation, mines, and smelting. San Francisco capitalists purchased the major mines and helped develop the Eureka district into second place in production behind the Comstock. Because this was a lead and silver district, new smelting methods had to be developed, and Eureka emerged as one of the foremost smelting districts in the entire West. Smelting methods developed here went directly to Colorado's Leadville and San Juan mining districts, displaying how California's influence went well beyond its immediate physical and financial impact.²⁵

Nor did it stop with the end of the century. Californians were there, along with their money, experience, and machinery, in Goldfield and Tonopah, Nevada, in the early 1900s. They purchased, developed, and speculated in these gold and silver districts and helped one more time to boom Nevada's mining industry. As in 1849 and again on the Comstock, the production of the Tonopah and Goldfield areas, Nevada historian Russell Elliott concluded, "had a pronounced effect on the total gold and silver production of the United States." The Comstock in 1875 accounted for 75 percent of American production; Nevada accounted for 20 percent in 1910.²⁶

Colorado's connection to California was not nearly as close as Nevada's. At first, the Pike's Peak gold rush of 1859 completely overshadowed the slower-to-develop and farther-from-the-East excitement at the Comstock. "Pike's Peak or Bust" attracted the attention of the eastern press and easterners. They came in near record numbers that spring—100,000 people, give or take a few—second only to the numbers of 1849. Because Californians became enamored with the potential of the Comstock, and because California investment and manufacturing centers were far away, Coloradans looked to the Midwest, the East, and Europe for support.

Nevertheless, Californians played an important role in the early discoveries of Colorado gold. A group of Cherokees from Indian Territory, en route to the California gold fields in 1850, found a small amount of gold near what would become Denver. Subsequently, having little luck in California's Mother Lode country, they returned home but did not forget what they had found along the Rocky Mountains. In 1858 they returned to the Rocky Mountains, led by William Russell, an experienced Georgia and California miner. The few hundred dollars worth of gold they found became the incident igniting the 1859 rush. "The New Eldorado!!!! Gold in Kansas Territory," screamed midwestern and eastern newspapers, and the rush was on in the spring. It would have been the "hoax" that some people predicted, if other experienced California miners had not found several more promising discoveries during the winter of 1858-59. George Jackson and John Gregory struck gold near present-day Idaho Springs and Central City. While they tried to keep their finds secret, by May 1859 the word was out, and Colorado's mining future leaped from questionable to boom.

Among the "Fifty-niners" who rushed westward were a few Forty-niners whose knowledge of placer mining helped the storekeepers, farmers, and other would-be miners work through the early trials and tribulations of the Pike's Peak country. As Rodman Paul observed, "former Californians and Georgians were their instructors; from these veterans of earlier mining frontiers the inexperienced multitude learned just enough to get started." Unfortunately, however, Colorado's placer deposits were neither as rich nor as large as California's, and within months Coloradans turned to quartz mining. Here, "since so many of the 'Old Californians' of the Colorado rush had in fact left California several years previously, they were not familiar with the technical progress that came with the maturing of mining on the Pacific Coast." Colorado miners were thus doomed to repeat some of the same mining and milling mistakes and other experiences of California.²⁷

They were not doomed to repeat everything, however. One of the significant contributions of Californians was the development of the concept of mining districts and mining law. The need to provide a basis for claim ownership and registration, and a fundamental mining law structure, had caused these developments. They wanted nothing costly or detailed, only a system that could be easily understood and function with rudimentary democracy. Again the Californians drew on worldwide experience in addition to their own as they scattered throughout the West taking the ideas with them.

The first mining district, created June 8, 1859, in present-day Gilpin County, Colorado, shows the influence of Fifty-niners and their California experience. The boundaries of the Gregory District were defined, the number of claims an individual could stake limited (to one), the rules for staking and registering claims specified, the rights of companies defined, and the rules for settling disputes in a miner's court

(with a three-man jury) described. The costs were small, \$1 for registering a claim and \$5 each for the secretary and "referees" for "their services" in settling a dispute. These first "laws and regulations" would be expanded at a July 16, 1859, meeting, and later as needed. Out of the experience of Gregory District and scores of other districts throughout the West would eventually come the federal mining laws in 1866, 1870, and finally 1872. Mining Commissioner Raymond hailed the "eminently wise and salutary" 1872 measure. "Doubtless some minor points in the bill would be found to require modification to insure its smooth working. Those may be left to the indications of future experience." William Stewart, the U.S. Senator from Nevada, led a determined battle to help bring this about. A former California miner, lawyer, and mining law expert, Stewart had transferred his career to the Comstock and on to Washington. Raymond congratulated him for displaying both "courage and judgment in its preparation." That 1872 mining law is still the "law of the land."²⁸

One of the most significant impacts of California and Colorado on western mining would be the development of water law, the doctrine of prior appropriation, or "first in time, first in right." The use of water was critical to placer operations, and that water could not be turned into the consistency of "liquid mud" by the work of miners higher up the stream. Water conditions affected the rights of quartz miners and mill and smelter men as well. California wrestled with the problem in the 1850s and Colorado faced it soon after the 1859 rush. The Gilpin County meeting of June 8 defined a basic principle—"in all cases priority of claim when honestly carried out shall be respected"—and "resolved" that, for quartz mining purposes, no one could use more than half the water of a stream. A February 1860 meeting produced a series of more detailed sections on water rights, including "that when water is claimed for Gulch and quartz Mining purposes on the same stream neither shall have the right to more than one-half unless there shall be insufficient for both, when priority of claims shall determine" and "that all other questions not settled by the provisions of this act, arising out of the rights of Riparian proprietors shall be decided by or in accordance with the provisions of the Common Law." It would not be until the 1870s in Colorado that finally the water conflicts between mining, agriculture, and urban needs would bring the issue to a head. The Colorado Supreme Court in 1872 laid down the basis for what became the "Colorado System," which was adopted throughout much of the West.²⁹

Colorado also used California technology, a point Rodman Paul clearly brought out in his vanguard 1960 essay, "Colorado as a Pioneer of Science in the Mining West." Some of the earliest mining equipment, including simple stamp mills, although they came from Iowa, were manufactured from plans obtained from experienced San Francisco manufacturers. Modifications soon appeared, and California's technological influence diminished after the early 1860s, although in a few cases where similar types of ores were found, machinery and milling practices were almost

identical. California- and Nevada-trained mining men and miners continued coming to Colorado in the following decades. As mentioned earlier, along with them came Eureka, Nevada, smelting and other techniques and equipment. Colorado would make its own contributions in the use of electricity, trams, power drills, and particularly in the scientific approach to smelting and mining gained from metallurgists, geologists, and chemists, but Colorado's start reflected California precedents.³⁰

California was the "pioneer teacher" for its two most important rivals, Nevada and Colorado. Each state made contributions, along with other western states, to the advancement of the mining industry. "Within a generation, [they] transformed American miners from unskilled operators into mining specialists whose services were sought in all parts of the world." By the turn of the century, Americans and American equipment had moved into the front rank of mining.

Unfortunately, California contributed something else to Colorado: mining speculators and speculation. It might have happened anyway, but the experienced Californians raced to pick up pieces of Colorado's wealth before it was too late. George D. Roberts, a ruthless sort who cut his teeth on California and Nevada mining speculations and the 1872 "diamond hoax" in northwestern Colorado, arrived. Along with George Daly, and some others of his crowd, they worked in booming Leadville and the nearby Ten Mile District. Of Roberts, it has been said that he was "a prosperous San Franciscan with—to be charitable—a shady past," who left in his wake "the shipwrecks of mines, reputations, and fortunes." Before he finished, two famous mines, the Chrysolite and the Robinson, lay in ruins.³¹

In contrast to Roberts, George Hearst helped develop two of the great western mines, Butte's Anaconda and Lead's Homestake. Experienced California miner Marcus Daly, who had also worked at the Comstock and in Utah, had taken Hearst and several of his wealthy California associates to Butte. These investors' money in the early 1880s allowed Daly to spend the funds necessary to develop the Anaconda into one of the country's famous mass-production copper mines using refined smelting techniques. They almost single handedly put Butte on the road to becoming a world famous copper center. A few years previous, during the Black Hills gold rush, the same group had purchased the Homestake claim, near Deadwood. They developed this mine into one of the world's greatest, and established the model company town of Lead.³²

George Roberts gave California mining investors a bad reputation, but the industry needed the promotion and finance that such people and their contemporaries contributed. As historians Clark Spence and W. Turrentine Jackson have shown, California's mining promoters were active throughout the second half of the nineteenth century in England and Scotland.³³ The record is a mixed one, but that was as much the fault of overenthusiastic, naive, and greedy investors as it was of unprincipled and unscrupulous speculators. Without the promotion and financial

support of these men, and a few women, such as Ferminia Sarras, Ellen Cashman, and Laura Swickhimer, mining would not have developed at the pace and to the extent that it did during these years.

Californians would be found in all the western mining states, but not with the impact they had in neighboring Nevada. J. Ross Browne, a contemporary of Raymond and also a well-known writer and mining reporter, observed that, when discoveries were made in Idaho in 1861 and 1862, the region was initially looked upon "as a theater for speculation and as a place for a temporary residence"; therefore, people returned to either the Pacific or Atlantic states with their fortunes. This transitory lifestyle shaped much of the West, at least in the early years of new districts. It was the case in California in 1849, in Colorado in 1859, and in Alaska in 1898. In 1867, however, Browne had hopes that this was changing, that Idaho would attract permanent settlement, and the territory would eventually be able to maintain itself. California, in this instance, contributed agricultural products and also mining knowledge and equipment.

Veteran California prospectors and miners, who helped open the Idaho mines, repeated the process, crossing the mountains into neighboring Montana, a familiar pattern in the West. Browne, however, warned that the California experience could be taken too far. "In California nearly all the gold-bearing veins are quartz, and the prospectors hardly ever prospect for anything else." Gold, he observed, is found in "slate and porphyry" in Idaho. It was a warning well taken, but he also knew that Californians could adjust. "The skill of some prospectors," he reported, "is wonderful in determining the existence and locality of small veins covered deep under the soil."³⁴

Idaho had its "golden age" in the 1860s. With California placers declining and Colorado's not matching expectations, Idaho and Montana became the "poor man's diggings." Both regions eventually turned to quartz mining, and corporation control developed there as elsewhere. California money and experience spread to both. The silver mines developed in the 1890s in Idaho's Coeur d'Alene also benefited. Even across the Canadian border, in Rossland and small mining districts such as Sandon and Silverton, California influence reached, albeit generally, and indirectly. Meanwhile, Californians and California-experienced miners scattered throughout the West, chasing their golden and silver dreams as the Forty-niners had done before them. Prospector Henry Wickenburg discovered Arizona's Vulture Mine in 1863, and Ed Schieffelen the Tombstone silver deposits in 1877. These two helped open Arizona to mining, but in the end, despite legendary and romantic contributions, it was the George Hearsts of the West who developed the prospectors' discoveries and profited the most from them.³⁵

California placer and hardrock mining might have been in decline by the turn of the century, but California's influence was not. The floating California dredge, for in-



The dredge *Phoenix* at work on the Yuba River, about 1850, as portrayed by William N. Bartholomew. The machine—one of the first—was described by J. Wesley Jones, who traveled west with the artist, as “a Cumbersome arrangement, by which it was designed to drag up sand from the bed of the river, and obtain gold in large quantities.” According to Jones, the *Phoenix* was abandoned after it was found to have “dredged more Money from the pockets of the owners than it did gold.” Dredging ultimately proved highly profitable, and following the turn of the century the “California dredge” came to dominate the industry worldwide. *California Historical Society.*

stance, became world famous. Californians had been tinkering with the dredge idea since 1850. It was part of their effort to move more gold-bearing gravel with less work and more profit, particularly from river bottoms and banks. These early efforts produced, as dredge historian Clark Spence noted, a “never-ending line of ingenious and sometimes bizarre equipment, with one failure after another consigned to the scrap heap until the late nineties.” Finally, by combining ideas from New Zealand and Montana, the “hybrid California-type” dredge appeared, superior to all its ancestors. It became the “standard for a global mining industry and a significant export item.”³⁰

Basically, the dredge applied the notion of mass production to mining. It offered the low cost and versatility to handle low-grade ores. Mining engineer Arthur Lakes, Jr., described it in 1909: “A gold dredge consists of a floating hull with a superstructure, a digging ladder, [an] endless chain of digging buckets, screening apparatus, gold-saving devices, pumps and stacker. It could be described as a floating mill with

the addition of apparatus for excavating and elevating the ore." California set the pace, not only for manufacture, but for use. In 1910, for example, 72 of the 113 dredges operating in the United States dug in California districts. Even more significant was the complete dominance of the California dredge. In 1915, only 11 out of a total of 225 dredges in use throughout the world were not American-made. Even if not manufactured in California, they were based on California's experience. In time, these dredges operated from Nigeria to Korea, from Portugal to the Philippine Islands. By mid-1932, they could be found in the Soviet Union; 22 new California dredges worked in Soviet placer fields. The California dredge had conquered the world. "The California-type dredge, known all over the world, is so efficient that it is being used on every continent where large quantities of low-grade metals are found."³⁷

It might have conquered the world, but the dredge did not conquer everyone's heart. As Robert Service watched the device tear up the Klondike, where only a few years before the Ninety-eighters had prospected, he wrote from the viewpoint of one of those pioneers:

There were piles and piles of tailings where we toiled with pick and pan
and turning round a bend I heard a roar,
And there a giant gold-ship of the very newest plan
Was tearing chunks of pay-dirt from the shore.

It was the triumph of corporations and, as Service observed, "Ah, old-time miner, here's your doom!"³⁸

Service was right on both counts: the old days were gone and, tragically, the environment's balance as well. The dredge's "bill of fare was rock and sand; the tailings were its dung." That dung, the piles of washed rock snaking along wherever the dredge dug, can be seen throughout the world. Therein lies another contribution of California. Not only did California pioneer in American mining, it pioneered in environmental awareness, even if that term may have been foreign to the nineteenth century.

Hydraulic mining, using a powerful hose and high water pressure to wash gravel, was carried on extensively in California by the 1870s. While it turned a profit and allowed lower-grade deposits to be worked, it also created major problems. Tailings obstructed the river, causing flooding that ruined agricultural land in the valleys and threatened towns. The issue came to a head in the Feather River Valley and at Marysville, which had been suffering damage from floods and hydraulic debris since the early 1860s. With residents unable to manage the altered river's behavior, and facing even further flood damage despite building higher levees to protect the town and surrounding lands, the dispute entered the federal courts. Local resident Edwards Woodruff sued some of the responsible mining companies, and the case of *Woodruff v. North Bloomfield Gravel Mining Co.* forced the industry to defend itself.

It was a contest between the emerging agricultural and urban California versus the mining industry that had created the state.

At the trial, both sides presented economic, social, and emotional arguments, not to mention threats to support their positions. Finally, on January 7, 1884, in a landmark case, U.S. Circuit Court Judge Lorenzo Sawyer, coincidentally a Forty-niner, "perpetually enjoined and restrained" the North Bloomfield Company "from discharging or dumping into the Yuba or its tributaries." As no place existed where the mining companies could profitably dump the tailings, they were forced to cease operation. An era ended that day. Times had changed, but mining methods had not changed with them. The ruling implied that miners no longer represented California's present and future. The industry no longer drew the population or wielded the economic and political power to impose its will. The legal case marked the first skirmish of a war over broad environmental policy that would become heated a century later.³⁹

The industry should have taken notice a decade earlier in Oakland. There residents objected to building a smelter in the city. Opposition centered on the offensive fumes, which would "poison our pure air" and render this "beautiful city an undesirable place to live." The city council heard complaints and, finally, on March 6, 1872, declared it would welcome all smelting works except those producing gases that would be harmful to the health of "her inhabitants." No smelter came to Oakland.

California might have "pioneered" in the environmental fight, but California's nineteenth-century miners were no pioneers in cleaning up the environment. For thousands of years, miners had dug into the earth without being challenged, so why should they pay heed now? Nor did other western miners and smelter men show any more interest when they were challenged in Salt Lake City, Denver, and Butte. They "sowed the wind and they shall reap whirlwind."⁴⁰

California was more than the Mother Lode country. It was the mother of western and to a lesser degree, world mining. This was claimed early by the Californians, a product of local boosterism as much as a reflection of the facts. However, outside observers noted the same trend. J. Ross Browne, in his 1866 report as U.S. commissioner for the collection of mining statistics, spent almost the entire first section of it discussing California's contribution to the migration of people, ideas, equipment, and finances in other mining districts. Mistakes had been made, but the future was bright with promise.⁴¹ That optimism was also a heritage of California—over the next mountain, in the next canyon, would be El Dorado.

Those ubiquitous veterans of the Sierra mines, the "old Californians," went everywhere carrying with them their craft of mining. They did more than that, however. They influenced regional life, the life of the mining camp and the town. The materialistic, boisterous, transient conditions of California mining communities would be re-created throughout the mining West. Perhaps Charles Shinn said it best when he

wrote more than a hundred years ago that, "out of the [mining] camps of old, powerful currents have flowed into the remotest valley of the western third of the American continent. We may even seek the great cities, whither all currents flow,—New York, London, Paris, Berlin, St. Petersburg."⁴²

California exported something else as well, a dream: a legend—"the days of '49." Call it nostalgia for a time passed, or perhaps one that had never really been. Maybe the Forty-niners remembered more than actually happened, but for whatever reason, the Gold Rush has become part of the American heritage, of American folklore. The entire nation felt the pull of the West. The last verse of a popular song, "Old Forty-Nine," concludes:

But now, alas! Those times have flown,
We ne'er shall see them more, sir,
But let us do the best we can,
And dig for golden ore, sir,
And if we strike a "decent lead"
Let's work and not repine, sir,
But take things easy as they did
In good old forty-nine, sir.

NOTES

1. Edward Blair, *Leadville: Colorado's Magic City* (Boulder: Pruett, 1980), 6, 7, 12, and 56. In the past generation, mining historiography has come of age. It has evolved from primarily general studies of local interest to well-researched studies of state, regional, national, and finally a start has been made on international histories. Topics and themes have matured and are as unlimited as was, and is, mining's impact. A group of well-trained, enthusiastic young scholars has emerged to "prospect" the veins of mining history. The formation of the Mining History Association, preservation efforts, and new interest within the mining industry have also stirred research and writing. The result of this effort can be seen in the notes that follow.

2. For a fascinating look at mining archaeology, preservation, and history, see *Death Valley to Deadwood: Kennecott to Cripple Creek* (San Francisco: National Park Service, 1990). This collection of the proceedings of the 1989 Historic Mining Conference at Death Valley National Monument also contains an excellent bibliography of western mining history.

3. Clark C. Spence, *The Northern Gold Fleet: Twentieth-Century Gold Dredging in Alaska* (Urbana: University of Illinois Press, 1996), 11.

4. Jay Monaghan, *Australians and the Gold Rush* (Berkeley: University of California Press, 1966), 223; see also chap. 12.

5. Rodman W. Paul, *Mining Frontiers of the Far West 1848-1880* (New York: Holt, Rinehart and Winston, 1963), 19-29; Georgius Agricola (Georg Bauer), *De re Metallica*, trans. Herbert and Lou Henry Hoover (New York: Dover, 1950), vi-xv. William S. Greever, *The Bonanza West* (Norman: University of Oklahoma Press, 1963; reprint, Moscow: University of Idaho Press, 1990), 46-54.

6. Charles Howard Shinn, *Mining Camps* (reprint, New York: Harper Torchbooks, 1965), 292; see also 290–95.
7. Richard A. Dwyer and Richard E. Lingenfelter, *The Songs of the Gold Rush* (Berkeley: University of California Press, 1964), 80.
8. Paul, *Mining Frontiers of the Far West*, 38–39; Daniel P. Marshall, "Rickard Revisited: Native 'Participation' in the Gold Discoveries of British Columbia" (unpublished paper presented at the 1996 Mining History Conference).
9. For a summary of the Comstock, see Greever, *Bonanza West*. Paul, *Mining Frontiers of the Far West*, Dan De Quille, *The Big Bonanza* (originally published in 1876, numerous reprints), and H. Grant Smith, *The History of the Comstock Lode* (reprint, Reno: University of Nevada, 1980).
10. Smith, *History of the Comstock Lode*, 289. Robert W. Cherny, "City Commercial, City Beautiful, City Practical," *California History* 73 (Winter 1994/95): 297–300.
11. De Quille, *Big Bonanza*, chaps. 1–13; Smith, *History of the Comstock*, 19, 23–24, 37–38.
12. Smith, *History of the Comstock*, 30–31; Greever, *Bonanza West*, chaps. 4, 5.
13. Mark Twain, *Roughing It* (Hartford: American Publishing, 1872), 304.
14. Rossiter W. Raymond, *Statistics of Mines and Mining* (Washington, D.C.: Government Printing Office, 1876), 471–73, 475–89, 505–17; Doreen Chaky, "John Henry v. Charles Burleigh's Drill," *Mining History Journal* (1994): 104–7; Otis E. Young, Jr., *Western Mining* (Norman: University of Oklahoma Press, 1970), chaps. 4, 5.
15. Edgar M. Kahn, *Andrew Smith Hallidie* (San Francisco, 1953), 10–11, 13. Hallidie is most famous for the San Francisco cable car system. *Engineering & Mining Journal*, June 20, 1871, p. 385, and August 22, 1903, p. 269. Otis E. Young, Jr., *Black Powder and Hand Steel* (Norman: University of Oklahoma Press, 1976), 108–12.
16. David J. St. Clair, "New Almaden and California Quicksilver in the Pacific Rim Economy," *California History* 73 (Winter 1994/95): 279–80, 291–94.
17. Rodman W. Paul, ed., *A Victorian Gentlewoman in the Far West* (San Marino, Calif.: Huntington Library, 1972), 11–13, 130, 186, chap. 12. For New Almaden, see Rossiter W. Raymond, *Statistics of Mines and Mining* (Washington, D.C.: Government Printing Office, 1874), 379–81; Rossiter Raymond, *Statistics of Mines and Mining* (Washington, D.C.: Government Printing Office, 1877), 458–59; J. Ross Browne and James W. Taylor, *Reports upon the Mineral Resources* (Washington, D.C.: Government Printing Office, 1867), 178–86; St. Clair, "New Almaden and California Quicksilver," 278–95.
18. J. H. Curle, *The Gold Mines of the World* (New York: Engineering and Mining Journal, 1905), 249. Curle concluded by saying "the young Englishman, who has as high a character, and as good brains—but a bad training—wonders why he is being passed over." See also Clark Spence, *Mining Engineers & The American West* (New Haven: Yale University Press, 1970), 127.
19. *Underground Latrines for Mines* (Washington, D.C.: Government Printing Office, 1916), 12–14.
20. Paul, *Mining Frontiers of the Far West*, 64–67.
21. Watson Parker, *Deadwood: The Golden Years* (Lincoln: University of Nebraska Press, 1981), 110–12. For the impact of other California mining men, see Richard H. Peterson's two books, *The Bonanza Kings* (Lincoln: University of Nebraska Press, 1977), and *Bonanza Rich* (Moscow: University of Idaho Press, 1991).
22. Smith, *History of the Comstock Lode*, 48–51; Paul, *Mining Frontiers of the Far West*, 76–79; Greever, *Bonanza West*, 124–30.

23. Smith, *History of the Comstock Lode*, 262-63.
24. Greever, *Bonanza West*, 117-20; Smith, *History of the Comstock Lode*, 107-15.
25. W. Turrentine Jackson, *Treasure Hill* (Tucson: University of Arizona Press, 1963), 151-52; Stanley W. Paher, *Nevada Ghost Towns & Mining Camps* (Berkeley: Howell-North, 1970), 166-72, 181-85; Russell R. Elliott, *History of Nevada* (Lincoln: University of Nebraska, 1973), 102-3, 105-7.
26. Russell R. Elliott, *Nevada's Twentieth-Century Mining Boom* (Reno: University of Nevada Press, 1966), 299-302; Ronald H. Limbaugh, "Making the Most of Experience," *The Mining History Journal* (1994): 9-13. See also Sally Zanjani, *Goldfield: The Last Gold Rush on the Western Frontier* (Athens, Ohio: Swallow Press/Ohio University Press, 1992).
27. See Duane A. Smith, *Colorado Mining* (Albuquerque: University of New Mexico Press, 1977), chaps. 1, 2; Paul, *Mining Frontiers of the Far West*, 111-14.
28. Thomas Marshall, ed., *Early Records of Gilpin County, Colorado 1859-1861* (Boulder: W. R. Robinson, 1920), 10-16; Paul, *Mining Frontiers of the Far West*, 172-73; Rossiter Raymond, *Statistics of Mines and Mining* (Washington, D.C.: Government Printing Office, 1872), 502, see also chap. 18. Charles W. Miller, Jr., *Stake Your Claim!* (Tucson: Westernlore Press, 1991), chaps. 2, 4; Russell R. Elliott, *Servant of Power* (Reno: University of Nevada Press, 1983), 55, 67-69; *The Continuing Vitality of the General Mining Law* (Denver: Colorado Mining Association, 1989), 2-17.
29. Marshall, *Early Records of Gilpin County*, 22; Carl Ubbelohde et al., *A Colorado History*, 7th ed. (Boulder: Pruett, 1995), 190-91.
30. Rodman W. Paul, "Colorado as a Pioneer of Science in the Mining West," *Mississippi Valley Historical Review* (June 1960): 34-50.
31. Stanley Dempsey and James E. Fell, Jr., *Mining the Summit* (Norman: University of Oklahoma Press, 1986), 116-25; Duane A. Smith, *Horace Tabor* (reprint, Niwot: University Press of Colorado, 1989), 118-19, 144-45; Bruce A. Woodward, *Diamonds in the Salt* (Boulder: Pruett Press, 1967), 22, 23, 29, 86; Clark Spence, "I Was a Stranger and Ye Took Me In," *Montana Magazine* (Winter 1994): 43-53; Joseph E. King, *A Mine to Make a Mine* (College Station: Texas A&M University Press, 1977), 91-97, 113-14.
32. Isaac Marcossou, *Anaconda* (New York: Dodd, Mead, 1957), 35-40; Watson Parker, *Gold in the Black Hills* (Norman: University of Oklahoma Press, 1966), 196-97; Greever, *Bonanza West*, 239-40, 307-8; Paul, *Mining Frontiers of the Far West*, 147, 180, 185-86. For a less successful Black Hills operation, see David A. Wolff, "Mining Ground on the Fringe," *Mining History Journal* (1995): 15-26.
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34. J. Ross Browne, *Report on the Mineral Resources of the States and Territories West of the Rocky Mountains* (Washington, D.C.: Government Printing Office, 1868), 517, 518-19, 522-23, 532; Merle W. Wells, *Gold Camps and Silver Cities* (Moscow, Idaho: Bureau of Mines, 1983), 1-24; Julia Conway Welch, *Gold to Ghost Town* (Moscow: University of Idaho Press, 1982), 9-20. See also Ronald C. Brown, *Hard-Rock Miners* (College Station: Texas A&M University Press, 1979). For women's contributions see Sally Zanjani, *A Mine of Her Own* (Lincoln: University of Nebraska Press, 1997).
35. Jeremy Mouat, *Roaring Days* (Vancouver: University of British Columbia Press, 1995), chaps. 1-3; Veronika Pellowski, *Silver, Lead & Hell* (Sandton: Prospector's Pick Publishing,

- 1992), 11-20; Duane A. Smith, "The Vulture Mine," *Arizona and the West* (Autumn 1972): 231-35; John Fahey, *Hecla* (Seattle: University of Washington Press, 1990), 3-15.
36. Clark C. Spence, *The Conrey Placer Mining Company* (Helena: Montana Historical Society Press, 1989), 3-11; Spence, *Northern Gold Fleet*, 1-12.
37. Arthur Lakes, Jr., "Gold Dredging Practice in Placers of Breckenridge, Colorado," *Mining Science* 59 (January 12, 1909): 28; Spence, *Northern Gold Fleet*, 10-11.
38. Robert Service, *The Best of Robert Service* (New York: Dodd, Mead, 1953), 56.
39. Robert Kelley, *Gold vs. Grain: The Hydraulic Mining Controversy in California's Central Valley* (Glendale, Calif.: Arthur H. Clark, 1959), 57-58, 76, 240-42; Duane A. Smith, *Mining America* (reprint, Niwot: University Press of Colorado, 1993), 67-72.
40. Smith, *Mining America*, 74-75; also chaps. 3, 4, 5.
41. Browne and Taylor, *Reports upon the Mineral Resources*, 13-36. See also Browne, *Report of the Mineral Resources*, 12.
42. Shinn, *Mining Camps*, 294-95. See also, for example, Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (reprint, Lincoln: University of Nebraska Press, 1965), 334-41, chaps. 6, 16, 18; Laurie F. Maffly-Kipp, *Religion and Society in Frontier California* (New Haven: Yale University Press, 1994), 184-85; Duane A. Smith, *Rocky Mountain Mining Camps* (reprint, Niwot: University Press of Colorado, 1992), chaps. 2, 14.

8

Seeing the Elephant

Anthony Kirk

In December 1848—the month President James K. Polk precipitated a mad rush west by publicly declaring that rumors of the discovery of a new El Dorado on the far reaches of the continent were true—a struggling young artist named George Holbrook Baker caught the gold fever. Tossing aside his brushes and closing his New York City studio, Baker hurried home to Boston, where he threw in with eleven other “respectable young gentlemen” to form a mining company, the New England Pioneers. “Armed with proper defensive weapons,” the adventurers set out for California in early January, having received the admonition of Reuben Lovejoy “to stick to our ‘New England Principles’ and not to leave one in exchange for every lump of gold taken out.”¹

Traveling by way of New Orleans, the Pioneers crossed the gulf waters on the schooner *Nancy Bishop* and, after riding muleback from Vera Cruz to Mazatlán, boarded a steamer for San Francisco. By late June, Baker was working a claim on the North Fork of the American River, one of thousands of enthusiastic young Americans eager to gather the golden harvest of this distant, fabled land. The first day, Baker’s labor brought him the grand sum of two dollars. The following day, fortune again eluded him, and on the third day of backbreaking toil he was rewarded with exactly forty cents. A miner, Baker philosophized, was “one who endures many hardships, suffers many privations, and ventures his health, in a measure, for the golden hope of gain, and often it amounts only to that, as some return with injured health and empty pockets.” On the Fourth of July, after less than two weeks in the mines, Baker packed up and headed off for Sacramento City, “satisfied,” as he put it, “with having seen the ‘elephant.’”²

Popular in the mid-nineteenth century, the expression “seeing the elephant” carried a variety of meanings. Following an exhausting forced march across the dreary



*Miner, Wall, how der du? put down your trunk
Your journey makes you puff
You've travelled hard, I like your spunk
Say! have you been up t'the 'Bluff'?"*

Elephant, I reckon, yes, have you?

Miner, "Yes Sirree" I've been there tu,

*Elephant, What saw you there? No Gold I swear!
To get it from the sand, you can't*

Miner, I saw one chup when you was there,

Elephant, Who?

Miner, I saw the "ELEPHANT."

"Seeing the Elephant," a mid-nineteenth-century lithograph designed by Wm. B. Murtrie. Printed and published by Benjamin F. Butler. *California Historical Society*, FN-30010.

wastes of western Washoe from the Carson Sink to the Truckee River—the road lined with dead and dying livestock, abandoned wagons and provisions—the Forty-niner Lucius Fairchild wrote in his diary that “that desert is truly the great Elephant of the route and God knows I never want to see it again.” Like Fairchild, Americans used the phrase to describe a hardship or an ordeal they had experienced. But more often than not, the Argonauts said they had “seen the elephant” only after making it to the diggings and trying their hand at mining, after coming to realize that golden riches could be won only through hard labor and good fortune and that they had been “humbugged” by reports of treasure for the taking. If the expression, as such, conveyed disappointment, it was a disappointment mixed with other powerful emotions: with the pride of having persevered in the face of countless dangers and difficulties, with the awe of having seen the new country and the mines, with the satisfaction of having had a grand and glorious adventure. Many an Argonaut who used the phrase probably had in mind the old tale of the farmer who upon hearing that a circus had come to town excitedly set out in his wagon. Along the way he met up with the circus parade, led by an elephant, which so terrified his horses that they bolted and pitched the wagon over on its side, scattering vegetables and eggs across the roadway. “I don’t give a hang,” exulted the jubilant farmer as he picked himself up. “I have seen the elephant.”³

The tremendous excitement associated with the gold discovery was captured on canvas in 1850 by the foremost American genre painter of the age, William Sidney Mount, of Long Island, New York. Reflecting Mount’s strong interest in character, *California News* (plate 1) focuses on the emotions aroused by tales of El Dorado. Wonder and awe and delight animate the faces of young and old, male and female, white and black, as all listen spellbound to an account of the far-off diggings printed in Horace Greeley’s New York *Daily Tribune*. On the rear wall hang posters advertising the departure dates of two California-bound ships, *Loo Choo* and *Sabina*, and the sale of “Gold Diggers Outfits.”

A celebrated painter, his pictures widely admired in Europe as well as in America, Mount had little incentive to respond to the excitement sweeping the country, apart from preserving the phenomenon in paint. Financially secure, he was largely immune to the gold fever, and, moreover, at forty-three he was perhaps a bit old to join in the rush, which was not only overwhelmingly masculine in character but youthful as well, the average age of the Argonauts being less than thirty. Numerous other artists, however, were caught up in “this extraordinary mania,” as the New York *Herald* of January 11, 1849 described it, and like George Holbrook Baker, they shut their studios and headed off for the land of gold. None had a reputation to equal Mount’s, but many were gifted and successful, and together with the countless amateur draftsmen and country painters who flocked to the diggings, they created an engaging pictorial record of what they saw and of what they did, of what it meant to see the elephant.

Among the thirty thousand or so gold seekers who gathered along the Missouri frontier in the spring of 1849—at Independence, at Council Bluffs, at points between—for the march across the Great Plains was J. Goldsborough Bruff. A deep-water sailor in his youth, a former master's mate in the U.S. Navy, and most recently a draftsman for the U.S. Bureau of Topographical Engineers, Bruff commanded a joint-stock company of more than sixty men from Washington, D.C., and environs. Crossing the wide Missouri the first week of June, Bruff kept up the journal of the expedition he had begun earlier, illustrating many of his experiences with pencil drawings and pastels. Particularly charming is his *Ferriage of the Platte* (plate 2), showing boatmen taking two wagons of the artist's Washington City Company across the river, near its confluence with Deer Creek. Although Bruff and his men made the passage without incident, death by drowning was a surprisingly common occurrence on the California Trail, with the Platte claiming more lives than any other river. In 1849 twenty-eight people lost their lives trying to cross at North Fork, and nearly as many died there the following year.⁴

As the overland migrants massed along the muddy Missouri frontier that spring—a great army of gold seekers impatiently waiting for traveling conditions to improve—the first wave of Argonauts who had set out by sea was already in the mines. The first vessel loaded with fortune hunters departed New York shortly after President Polk confirmed the abundance of gold in California, and in 1849 some forty thousand Americans followed one of the sea routes, which would prove far more popular than the overland trail. John Hovey, a laborer from Lynn, Massachusetts, was in the advance guard, taking passage with forty-three other adventurers in the billet-head brig *Charlotte*, which sailed from Newburyport in January. Once at sea, Hovey opened his journal and painted a handsome, vividly colored image of his ship crossing the bar outside the harbor (plate 3), the beginning of a long voyage around Cape Horn. "This day," he wrote, "we bid adieu to our Dear Native Land, severing the many endearing ties which bind us to our relations and friends, amid the sighs and tears of the fairest portion of mankind and amidst the Cheers and acclamations of about seven hundred male friends who had assembled to witness our Departure for the Golden Land of Cali[ornia]."⁵

For the most part, the Argonauts who followed in Hovey's wake had an easier time of it than the men who traveled the California Trail. The overland route was a journey of more than two thousand miles and some five months, an epic excursion across prairies and mountains and deserts, a test of men and animals, requiring both physical and mental toughness. Those who set out from the Missouri frontier in the greatest migration in the history of the Republic ran a variety of risks. They suffered various diseases, including cholera, which carried away its victims by the score, and such misfortunes as accidental shootings, broken axles, insufficient supplies, and even the occasional Indian attack. By contrast, except for stale water and insect-

infested food, seasickness, or a bully mate and a bad crew, the greatest hardship endured at sea was often boredom, the terrible tedium of half a year under sail. Argonauts able to afford passage on a clipper ship, those noble greyhounds of the seas that coursed the main at breathtaking speed, could make it to San Francisco in ninety days. They could also shorten the trip by crossing Central America at the isthmus and waiting at Panama City for one of the Pacific Mail Steamship Company's side-wheelers to take them to the golden shore.

The German-born artist Charles Nahl chose the Panama route when he set out for California in 1851, as did the majority of gold seekers by this date. Nahl, who had arrived in New York by way of Paris two years earlier, was a superb draftsman and among the most able of the artist-Argonauts. Taking the steamer *Ohio* to Havana in late March, he boarded the *Falcon* and arrived off the isthmus on April 11. While waiting to go ashore at Chagres he made a pencil drawing that several years later he would work up into a sparkling, meticulously detailed oil showing the ship's launch pulling for shore in the shadow of the storied castle of San Lorenzo (plate 4). Though the Pacific Ocean lay but sixty miles distant from the pestilent port of Chagres, the trip took five days, traveling by boat and muleback, and Argonauts could encounter a variety of dangers—bandits, alligators, poisonous snakes, and fever among them. Despite the hardships Nahl endured, he was profoundly impressed by the sweltering tropical landscape and later wrote home to tell of rank, teeming jungles, of “palms softly waving their branches,” of the “screams of monkeys,” of a “full moon over the water reflecting swarming beetles and birds.”⁶

When Nahl arrived in San Francisco, he lingered but a single night before hurrying off to the diggings. Most Argonauts spent longer, pausing to prepare their outfits for the final push to the mines or to seek out new comrades if contention had splintered the mining company with which they had set out so confidently months earlier. After a long sea voyage, a half year of terrible food and unbearable monotony, it was difficult, as well, for a young man not to succumb to the attractions of San Francisco—the streets lined with lively shops and saloons and crowded with a busy, enterprising, and cosmopolitan people. “The very air is pregnant with the magnetism of bold, spirited, unwearied action,” exclaimed the journalist Bayard Taylor, “and he who but ventures into the outer circle of the whirlpool, is spinning, ere he has time for thought, in its dizzy vortex.”⁷

Evenings in California's magnificent metropolis were particularly enchanting, and high-minded and stout-hearted was the Argonaut who did not succumb to the temptation of entering one of the gambling palaces surrounding Portsmouth Square, where in a blaze of light the pleasures of drink and gaming and “bad, lewd” women prevailed. The English-born author, adventurer, and amateur artist Frank Marryat, who arrived in San Francisco in June 1850, caught the barbaric splendor of one of these saloons in a drawing that was reproduced as a hand-colored lithograph in the

English edition of his *Mountains and Molehills* (plate 5). Dazzled as he entered by the brilliance of the huge chandeliers and mirrors, he delighted in the rich furnishing of the room, the gilded ceiling supported by glass pillars, and the walls "hung with French paintings of great merit, but of which female nudity forms alone the subject." Gold was heaped high upon the monte tables, where "dexterous dealers" turned the cards, and above "the din and turmoil of the crowd" sounded the occasional pistol shot.⁸

Unlike the Argonauts who came by sea, the overland emigrants often needed to rest upon their arrival, weary and ragged as they were from the rigors of crossing endless deserts and high-mountain passes. Placerville was a favored spot to gather their strength if they took the Carson River route, or Johnson's Ranch if they traveled the Truckee Trail, which led past the remains of the "cannibal camp" marking the sufferings of the Donner Party. The eight thousand unfortunate Forty-niners who chose Lassen's Cutoff far to the north, which flourished for a single season and added two hundred miles to the trip, had the hardest time of it. Those in the rear found themselves caught in the mountains dangerously late in the year and forced to abandon wagons and belongings in a race for the sheltering Sacramento Valley.

J. Goldsborough Bruff and his Washington City Company were among the last to travel the "Greenhorn Cutoff," as the Lassen route would come to be called. When the party made the strategic decision to divide, Bruff volunteered to remain with two of the wagons while the others took the strongest mules and went for help. Trapped by heavy snows, Bruff suffered through the winter in a primitive lodge constructed of poles covered with heavy cotton sheets—sharing it for a spell with two companions, one of them a four-year-old boy abandoned by his father—and then stumbled out of the mountains, more dead than alive. Despite the ordeal, Bruff kept up his journal and continued to draw. In mid-December he produced a pastel of the lodge (plate 6) where he endured inflamed and painful eyes, fever, rheumatism, and the most miserable of rations, including, one day, a portion of parboiled raven and several old, weathered deer shanks, which, when broiled, provided him with "more carbon & burnt hairs, than nutritious matter."⁹

Once safe in California, the hardships of the journey behind them, the overlanders swarmed through the mines, joining the Argonauts who had earlier arrived by ship. Among the first artists to visit the diggings was the surveyor and skilled amateur William R. Hutton. Traveling from San Francisco by way of Sutter's Fort, Hutton reached the community of Mormon Island on April 14, 1849, noting in his diary that the miners were still meeting with success in working the old sandbar in the American River where gold had been discovered the previous March. Curiously indifferent to the commotion all around him—more interested in the flora and fauna than in the gold diggers—Hutton arrived at Sutter's Mill the next afternoon, and on the sixteenth he made a fine watercolor drawing of Coloma, the mining

camp that had sprung up around the storied site of James Marshall's discovery (plate 7). It was "a pretty place," he thought, and "thriving," too, composed of some twenty to thirty cabins and numerous tents. "High & bare hills on both sides," he wrote in his diary, "the vally narrow & level; full of tall, straight pines, with some oak, yew & *Pinus Sinclairii*."¹⁰

In their quest for riches, the Argonauts streamed through the foothills of the Sierra Nevada, trying their luck at Coloma, at Poverty Hill, at Agua Fria, at Humbug Flat, at countless established communities and secluded camps of their own, wherever a pan of sand and gravel washed in a mountain stream showed sufficient "color." The Philadelphia artist William McIlvaine, Jr., who arrived in the gilded summer of 1849, delighted in the scenery he encountered, particularly the rugged canyons of the Southern Mines, which he thought "extremely wild and picturesque." While tramping the diggings, McIlvaine produced a number of watercolors, including one of two miners working their claim along a gently flowing river (plate 8). But despite the serenity of McIlvaine's evocative image, with its picturesque setting and poetic atmosphere, mining was grueling work. Beginning early in the morning, the Argonauts toiled with pick and shovel, with gold pan and rocker—digging deep into the rocky earth, washing shovel after shovel of soil and sand—as the oppressive sun rose higher and higher in the sky. Exhausted, they broke for the midday repast, then returned to their claims in the afternoon to continue the sweaty struggle until sunset brought blessed relief from the drudgery. "Gold," cautioned the Forty-niner Samuel S. Osgood, "cannot be had by any one who sits still, but he must labor hard—hard as the Irishman who carries the hod or the paver who paves the street."¹¹

Charles Nahl and August Wenderoth caught the toils of the Argonauts in a painting, *Miners in the Sierras* (plate 9), which shows four men in a lonely mountain canyon working a claim with a long tom. Nahl and Wenderoth, who had traveled together from New York, knew life in the diggings firsthand, having mined in the spring of 1851 with Charles's brother Arthur near Rough and Ready in Nevada County, and their portrayal of the gold diggers is powerful and authentic, wonderfully suggestive of the colossal labor necessary to wrest riches from the earth. Presumably the artists had some experience themselves with the long tom, an elongated evolution of the rocker, which had come into common use the previous year and which allowed three or four men, working together, to increase their efficiency enormously.

The Argonauts who headed west soon after President Polk electrified the nation with word of the new El Dorado often met with surprisingly good luck mining on their own, simply by employing a tin pan to wash golden flakes and nuggets from the sandy loam of a riverbank. The following year, however, good claims became scarce as the shallow placer deposits disappeared. And even before Nahl and Wenderoth started for the land of gold, miners found it imperative to form partnerships and companies in order to make a go of it in the diggings—two or three men to oper-



Plate 1. William S. Mount, *California News*, 1850. Oil on canvas, 21 1/2 x 20 1/4 in. Courtesy Museums at Stony Brook, New York; gift of Mr. and Mrs. Ward Melville.

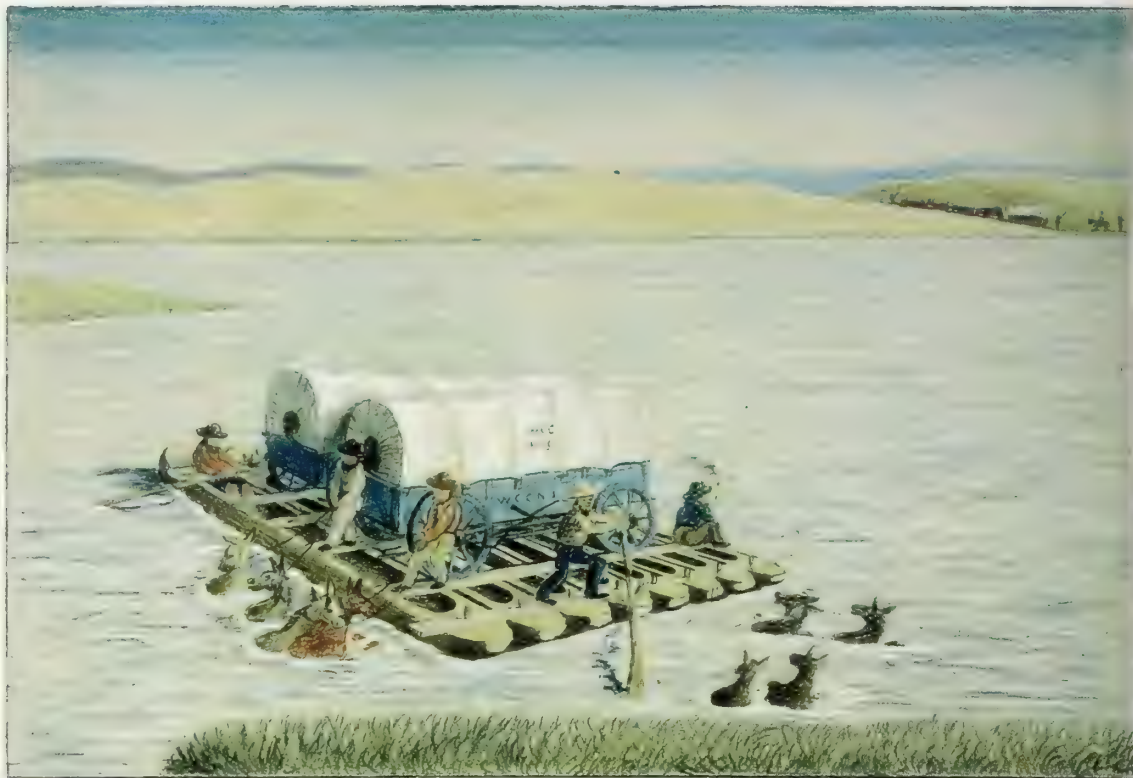


Plate 2. J. Goldsborough Bruff, *Ferriage of the Platte*, 1849. Pastels on paper, 8 x 11 $\frac{3}{8}$ in. Courtesy Huntington Library, San Marino, Calif.



Plate 3. John Hovey, *Brig Charlotte Crossing N[ewbury] P[ort] Bar*, 1849. Gouache and watercolor on blue paper, 7 $\frac{1}{2}$ x 13 $\frac{1}{4}$ in. Courtesy Huntington Library, San Marino, Calif.



Plate 4. Charles C. Nahl, *Boaters Rowing to Shore at Chagres*, 1855. Oil on tin, 9 1/4 x 12 in. Collection of Oscar and Trudy Lemer. Photograph courtesy Crocker Art Museum, Sacramento.



Plate 5. Frank Marryat, *The Bar of a Gambling Saloon*. From Frank Marryat, *Mountains and Molehills: or, Recollections of a Burnt Journal*, 1855. California Historical Society.



Plate 6. J. Goldsborough Bruff, *W. End of Lodge before the Snow Storm*, 1849. Pastels on brown paper, 11 x 16 ½ in. *Courtesy Huntington Library, San Marino, Calif.*



Plate 7. William R. Hutton, *Sutter's Saw Mill*, 1849. Watercolor and pencil on paper, 6 x 9 in. *Courtesy Huntington Library, San Marino, Calif.*



Plate 8. William McIlvaine, Jr., *Panning Gold, California*, undated. Watercolor over graphite on paper, 18 $\frac{5}{8}$ x 27 $\frac{1}{2}$ in. Courtesy M. & M. Karolik Collection, Museum of Fine Arts, Boston.



Plate 9. Charles C. Nahl and August Wenderoth, *Miners in the Sierras*, 1851-1852. Oil on canvas, 54 $\frac{1}{4}$ x 67 in. Courtesy National Museum of American Art, Smithsonian Institution; gift of the Fred Heilbron Collection.



Plate 10. Unidentified artist, *Washing Gold at Calaveras River*, 1853. Watercolor and gouache on paper, 16 $\frac{1}{8}$ x 22 in. Courtesy M. & M. Karolik Collection, Museum of Fine Arts, Boston.



Plate 11. Henry Walton, *William D. Peck, Rough & Ready, California*, 1853. Watercolor on paper, 11 x 13 $\frac{1}{4}$ in. Courtesy Oakland Museum of California.



Plate 12. Alburtus D. O. Browere, *Goldminers*, 1858. Oil on canvas, 29 x 36 in.
 Courtesy Anschutz Collection, Denver.



Plate 13. Ernest Narjot, *Miners: A Moment at Rest*, 1882. Oil on canvas, 39 $\frac{1}{8}$ x 49 $\frac{3}{8}$ in. Courtesy Autry Museum of Western Heritage, Los Angeles.



Plate 14. Unidentified artist, *The Miner's Dream*, undated. Oil on canvas, 36 x 44 ½ in. Courtesy Society of California Pioneers.



Plate 15. Alburtus D. O. Browere, *The Miner's Return*, 1854. Oil on canvas, 24 x 30 in. Collection of Everett Lee Millard. Photograph courtesy Crocker Art Museum, Sacramento.

ate a rocker, three or four for a tom, six for two cradles, a dozen for ground sluicing. The increasingly cooperative nature of gold mining, which ultimately evolved into large-scale corporate businesses, is evident in a handsome watercolor executed in 1853 in Calaveras County (plate 10). The work of an unidentified artist, it shows a company of fortune hunters engaged in a river-mining operation, the tall mast of their derrick rising above the rocky outcrop. Although such enterprises could yield incredible riches, they could also result in complete failure or even disaster, with dams and flumes and canals—the work of months—destroyed in an unseasonable storm. As the wise and witty observer who called herself Dame Shirley put it, “Gold mining is Nature’s great lottery scheme.”¹²

After a day’s labor of working a rocker or shoveling pay dirt into a long tom, the miners returned to their camp and prepared the evening meal, with fatigue soon leading them to sleep. For many, the hard, rocky ground was their bed, a canvas tent or rude brush shanty their only shelter. The more industrious Argonauts fitted up snug cabins with comfortable bunks, such as the New York-born artist Henry Walton depicted in his meticulously detailed watercolor *William D. Peck, Rough and Ready, California* (plate 11). Though far from home and loved ones, such accommodations were the setting for many an agreeable evening, with several miners indulging themselves in the simple pleasures of a companionable meal, pipes, and conversation. The same surroundings could, however, be the scene of sorrow and sickness and death, as related by a Forty-niner in a letter rich with imagery and human emotion. “Imagine to yourself,” he wrote, “three persons in a lonely cabin situated in a deep ravine, the rain pouring down, a dark night, and nothing to be heard save the pattering rain and the barking of coyotes; one of the three lying in the worst stages of the smallpox, his face and hands almost as black as coal; the sick one in the last hour of his life and the other two sitting by, watching in silence for the last of earth; then you can see us as we passed the night of the fourth of January, 1853, in Dragoon Gulch, California.”¹³

As a relief from the drudgery of their long days, the boredom, the frequent disappointment, miners sought out recreation whenever opportunity arose. Albturtus Del Orient Browere, who arrived in California in 1852 from his home in Catskill, New York, produced an animated portrait of miners enjoying a spirited game of cards at day’s end (plate 12). The pleasures of cards and tobacco were innocent enough, but many of the men who labored six or seven days a week succumbed to more serious vices. “Gambling, drinking & houses of ill-fame are the chief amusements of the country,” declared Lucius Fairchild in the summer of 1850, though he was quick to add that he did “not frequent such places.” Sunday was invariably the great day to seek out the amusements of town, as all miners attested, often with surprise or shock. “In the morning,” wrote Enos Christman of Sonora, “we have public auctions, in the afternoon the bullfight and the circus and Dr. Collier’s troupe of

Model Artists, together with numerous fandango rooms, dance houses, and score of gambling hells."¹⁴ Many Argonauts, by contrast, held fast to traditional values and spent the Sabbath quietly—reading passages from the Bible, washing clothes, writing letters home, soaking up the wild, mountain beauty of their Sierra Nevada home. The talented French-born artist-Argonaut Ernest Narjot ably developed the theme of Sunday as a day of companionable relaxation in *Miners: A Moment at Rest* (plate 13), a painting executed some thirty years after he himself had mined for gold at Fosters Bar on the Yuba River.

Despite high hopes of bright fortune smiling upon them, the freedom and independence of the new country, the lusty pleasures of San Francisco and the mining towns, rare was the Argonaut whose thoughts did not regularly drift homeward to family and loved ones. "I am a stranger in a strange land," wrote William Swain to his wife in February 1850, "with the bonds of friendship, the endearments of the home of youth and the fond ties of kindred all exerting their influences upon me, and like the pole to the needle, they attract all my thoughts and preferences back to the land of my home and family." Etienne Derbec, an astute French observer of life in the mines, declared that homesickness gripped all the miners, and that "when they stretch out at night on the hard earth, their backs broken by the day's labors, they think about the bed on which they used to rest so comfortably." Many of them thought, as well, of the fond embrace that awaited them so far away, as poignantly portrayed in an oil painting by an unknown artist that dates to the age of gold (plate 14). "Oh, Matilda," moaned the Forty-niner David Dewolf in the summer of 1850, "oft is the night when laying alone on the hard ground with a blanket under me and one over me that my thoughts go back to Ohio and I think of you and wish myself with you."¹⁵

Few Argonauts gathered the golden harvest they set out so confidently to reap. Many returned home after a single unsuccessful season in the mines, satisfied with having seen the elephant, while others stayed on a year or two or more, finding it difficult to overcome their pride and admit defeat. But, ultimately, unless they remained and became Californians, they packed up and headed home—to Pennsylvania or Massachusetts or Iowa or Georgia, to the glad welcome portrayed in Al-burtus D. O. Browere's sentimental painting *The Miner's Return* (plate 15), executed in 1854, two years before the artist took himself back to Catskill, New York. For the most part, though, whether they made their "pile" or returned empty-handed, the Argonauts came to glory in the grand adventure of their splendid, vigorous youth. The Forty-niner Richard Lunt Hale appeared in his hometown of Newburyport, Massachusetts, in the spring of 1854, bronzed and bearded, but without the riches he had set out for more than four years earlier at the age of twenty-two. His odyssey had taken him to El Dorado, where he mined on the Yuba River and at Murphys Camp, as well as to Portland and the Oregon Territory. Despite failure, Hale realized

hat my experiences had been as valuable to me as the bag of gold I had come
ome without. The gold might easily vanish, but that which I had gained in pursu-
ing the 'pot of gold at the end of the rainbow' could never be taken away."¹⁴

NOTES

1. An unidentified Boston newspaper and Reuben Lovejoy are quoted in George H. Baker, "Records of a California Journey," *Quarterly of the Society of California Pioneers* 7 (December 1930): 218, 220.

2. George H. Baker, "Records of a California Residence," *Quarterly of the Society of California Pioneers* 8 (March 1931): 46-47, 48.

3. Joseph Schafer, ed., *California Letters of Lucius Fairchild* (Madison: State Historical Society of Wisconsin, 1931), 34. The story of the farmer, which has appeared in various versions over the years, is taken from Time-Life Books, *The Forty-niners* (New York: Time-Life Books, 1974), 80. Numerous examples of how the Argonauts used the phrase can be found in the Foreword to John Phillip Reid, *Law for the Elephant: Property and Social Behavior on the Overland Trail* (San Marino, Calif.: Huntington Library, 1980), ix-x.

4. John D. Unruh, Jr., *The Plains Across: The Overland Emigrants and the Trans-Mississippi West, 1840-60* (Urbana: University of Illinois Press, 1979), 409. For Bruff's diary, richly illustrated with his drawings, most of which are at the Huntington Library, see Georgia Willis Read and Ruth Gaines, eds., *Gold Rush: The Journals, Drawings, and Other Papers of J. Goldsborough Bruff*, 2 vols. (New York: Columbia University Press, 1944).

5. John Hovey, "Journal of a Voyage from Newburyport, Mass. To San Francisco, Cal., in the Brig Charlott[e]," January 23, 1849, Huntington Library. I have introduced punctuation into the passage for the benefit of the reader.

6. Charles Nahl to his father and stepmother, Sacramento, February 3, 1852, quoted in Moreland L. Stevens, *Charles Christian Nahl, Artist of the Gold Rush, 1818-1878* (Sacramento: E. B. Crocker Art Gallery, 1976), 34.

7. Bayard Taylor, *Eldorado, or, Adventures in the Path of Empire*, 2 vols. (New York: George P. Putnam, 1850), vol. 1, 114.

8. Frank Marryat, *Mountains and Molehills: or, Recollections of a Burnt Journal* (New York: Harper & Brothers, 1855), 42, 45.

9. Read and Gaines, *Gold Rush*, vol. 2, 671.

10. William Rich Hutton, *Glances at California, 1847-1853* (San Marino, Calif.: Huntington Library, 1942), 11. Hutton's drawings and watercolors, together with his diaries and letters, are at the Huntington Library.

11. William McIlvaine, Jr., *Sketches of Scenery and Notes of Personal Adventure, in California and Mexico* (Philadelphia: Smith & Peters, Printers, 1850), 19; *New York Daily Tribune*, June 22, 1849.

12. Carl I. Wheat, ed., *The Shirley Letters from the California Mines, 1851-1852* (New York: Knopf, 1949), 136. In November 1852, seven months after she wrote the letter quoted from, Dame Shirley noted that the thirteen men of the American Fluming Company, which had turned a branch of the Feather River out of its bed, had been rewarded with \$41.70 in gold dust for their summer's labor.

13. Enos Christman, *One Man's Gold: The Letters & Journals of a Forty-Niner*, ed. Florence

Morrow Christman (New York: Whittlesey House, 1930), 276. Dragoon Gulch was located near the mining town of Sonora.

14. Schafer, *California Letters of Lucius Fairchild*, 71; Christman, *One Man's Gold*, 179

15. William Swain and David Dewolf are quoted in J. S. Holliday, *The World Rushed In: The California Gold Rush Experience* (New York: Simon & Schuster, 1981), 329, 353; A. I. Nasatir, *A French Journalist in the California Gold Rush: The Letters of Etienne Derbec* (Georgetown, Calif.: Talisman Press, 1964), 121.

16. Carolyn Hale Russ, ed., *The Log of a Forty-Niner* (Boston: B. J. Brimmer, 1923), 180

The Gold Rush and the Beginnings of California Industry

David J. St. Clair

THE CALIFORNIA ECONOMY ON THE EVE OF THE GOLD RUSH

In 1845, California was a sparsely populated, remote, colonial outpost. Not counting the 100,000 unassimilated Indians who continued to live independently, California's population of 17,900 (10,000 assimilated Indians, 7,000 Spanish/Mexican descendants, 700 Americans, and 200 Europeans) was largely clustered along the coast from San Diego to Sonoma.¹ Monterey and Los Angeles were its cultural centers, while San Francisco, then known as Yerba Buena, was only a small hamlet of a few hundred people.

On the eve of the Gold Rush, the missions had been secularized and decaying for more than a decade. Most economic activity was organized around the ranchos, large cattle ranches that produced hides and tallow, the two leading commodities that connected California with the outside world. Along with soap making, the processing of hides and tallow were the only activities that might be described as industrial. The hides, minimally dressed and processed, were sold to foreign merchants. Cattle brought from \$4 to \$6 per head, reflecting the value of their hides and fat.² Ample supply and very limited demand made the meat almost worthless. The export of hides, tallow, and small quantities of wheat, soap, lumber, and gold financed imports. Imported products and local crafts provided Californians with a simple but comfortable life.

California's pre-gold-rush economy was certainly rudimentary. Some historians have gone further, arguing that it was stagnant. In their pioneering economic history, Robert Cleland and Osgood Hardy described California from 1769 to 1848 as "sparsely populated by an unambitious, pastoral people who were seemingly . . . indifferent to all material progress and . . . unmindful of the vast economic opportunities that surrounded them on every hand."³ Although this stereotypical criticism



When the amateur artist William R. Hutton visited San Francisco in September 1847, it was a rough-and-tumble community of adobes, shanties, and frame buildings scattered along Yerba Buena Cove. But following the discovery of gold at Coloma in January, the village was transformed into a vigorous cosmopolitan city. By late 1851 it had a population of some thirty thousand, streets lined with solid brick edifices, and one of the busiest ports in the nation. *Courtesy Huntington Library, San Marino, Calif.*

is unwarranted, there is no doubt that the California economy was small and largely undeveloped.

The Gold Rush unleashed a torrent of change on this pastoral economy. Its first effect was to disrupt the economy. Workers, ranch hands, and shopkeepers rushed off to seek their fortunes in the gold fields. One San Francisco newspaper printed its last edition in 1848 with the following declaration:

The majority of our subscribers and many of our advertising patrons have closed their doors and places of business and left town. . . . We have also received information that very many of our subscribers in various parts of the country have left their usual places of abode, and gone to the gold region. . . . The whole country from San Francisco to Los Angeles and from the sea to the Sierra Nevada resounds with the sordid cry of "gold! GOLD!! GOLD!!!" while the field is left half planted, the house half built, and everything neglected but the manufacture of shovels and pickaxes.⁴

Although we have no statistics, production must have suffered. Fortunately, the disruption was only temporary, as many who rushed off in search of fortune returned after finding only hard work and little gold. However, the lure of gold kept labor at a premium, at least at first, and high wages were a common complaint. John Hittell, a contemporary commentator, argued that high wages delayed industrial development in California.⁵

Those who returned from the gold fields found a very different economy. Overnight, gold transformed California's lethargic business world into a surging boom. People rushed in and gold poured out into the world economy, as California became the center of world production of precious metals. The surge of population brought an unprecedented demand that turned the traditional economy upside down. The scrawny Spanish-stock cattle that earlier had sold for \$5 per head now brought \$300 to \$500 per head to feed hungry miners with gold in their pockets.⁶

By the beginning of 1849, California's population had reached 26,000.⁷ By the summer, it jumped to 50,000. San Francisco became the world's fastest growing city, its population exploding from 812 in 1848 to 25,000 in 1850. The official census of 1850 recorded 92,597 people living in the state, while unofficial estimates put the correct figure at 115,000. California's population rose to 380,000 in 1860, 560,000 in 1870, and 865,000 in 1880.⁸ During its first century as a state, California's population doubled roughly every twenty-five years.

Mining surged, and California agriculture was soon booming as well. Herds of cattle and sheep driven to California augmented local supplies. Wheat output increased dramatically. By 1860, California was producing five times as much wheat as all other western states and territories combined. California wheat exports poured into world markets. Vineyards were also planted and a wine industry took root within a couple of years of James Marshall's discovery. The impact of gold on California agriculture has generally been appreciated, but what about California industry? Was it similarly influenced, or were money, labor, and energy channeled instead only into gold mining and agriculture?

HISTORIOGRAPHY OF CALIFORNIA INDUSTRY DURING THE GOLD RUSH

Historians have offered divergent views of California industry during the Gold Rush. All acknowledge that important first steps were taken during these years, but many argue that industrial development lagged until the last decade of the nineteenth century, or even later. John Hittell began his 1862 survey of California industry, *The Resources of California*, with a list of reasons why the state's industry could not compete with eastern or European producers.⁹ High wages, high interest rates, and a lack of coal, iron, and cotton supplies, he argued, were barriers that producers could not



A team of oxen hauls a wagon loaded with barrels of lime from the Davis & Cowell kilns at Santa Cruz, about 1865. The rapid rise of urban California that began with the Gold Rush created a huge demand for lime, an essential element in the making of mortar, plaster, and cement. Lime production emerged as a leading industry of Santa Cruz at midcentury, and by 1868 the company was shipping a thousand barrels a week, helping to make Henry Cowell one of the richest men in the county. *Courtesy Society of California Pioneers.*

hurdle. In the 1879 edition of the same book, Hittell added the following to his list of obstacles retarding industry: a lack of water power near cities, high transportation costs, expensive water in large towns, expensive land prices near deep-water ports, and insecure land titles.¹⁰ According to Hittell, these obstacles prevented California from exporting any manufactures, kept industry only producing crude industrial products, and limited the state's exports to unfinished or semi-finished resources.¹¹

To be sure, Hittell's 1879 edition chronicled more industrial activity in the state by that date, but he still described California products as being "mostly of a crude class."¹² He argued that California producers were able to survive because high transportation costs made outside goods less competitive in the California market.

Hittell concluded that "California agriculture and mining industries had reached advanced development in some branches, while our manufactures are backward."¹³ Symptomatic of the state's retardation was its failure to embrace steam power, relying instead on its human muscle, to its "great disadvantage."¹⁴

Hittell's views became less pessimistic in his later work, but historians have echoed his negative themes down to the present. One author of a survey history of the state, Andrew Rolle, observed that large-scale manufacturing in California appeared "tardily on the scene" due to unstable conditions in California and its distance from large eastern cities.¹⁵ Earl Pomeroy concludes that during the Gold Rush "Western industry lagged or even deteriorated while Western agriculture advanced in technique and prospered."¹⁶ According to Pomeroy, the problem was that "Western manufacturers could not compete with the mass production of the older states except in goods that had to be custom-made or cost too much to ship."¹⁷ In addition, San Francisco businessmen "were content to put their capital into the finished goods that came from the East."¹⁸

Richard Rice, William Bullough, and Richard Orsi note that in 1860 San Francisco ranked fifteenth among American cities in terms of population, but only fifty-first in terms of manufacturing "because conditions then discouraged heavy industry in the city and state."¹⁹ Scarce coal and iron, prohibitive interest rates, and more lucrative prospects in mining, transportation, and land delayed industrialization until the 1860s and early 1870s. They argue that isolation brought on by the Civil War was a factor in stimulating industrial growth, but concede that the industrial demands of new mining techniques were more important.

Other writers argue that the Civil War had a greater impact on California industry. Cleland and Hardy credit disrupted trade with the East Coast with affording more protection for California's infant industries, including the manufacture of boots, shoes, clothing, chemicals and drugs, furniture, iron and steel, distilled liquor, soap, candles, and tobacco products.²⁰ Rolle argues that the Civil War not only provided infant industry protection to California firms, it also turned San Francisco into an export center for grain, flour, lumber, wool, mineral ores, quicksilver, and other products.²¹ The implication in these accounts is that California industry was delayed until the war, an external event, forced California producers to develop their own resources. However, this stimulus was short-lived, making the industries that benefited from the war exceedingly vulnerable to the inevitable downturn that came with peace.

W. H. Hutchinson writes that while California lacked the coal and iron necessary for industrial expansion, the state "quickly established a basic heavy industry because she had to."²² Cleland and Hardy repeat Hittell's discussion of the obstacles retarding California industrial growth, but nonetheless cite "a material advance" in California industry between 1850 and 1870, especially during the Civil War.²³ However, they argue that higher profits in mining and agriculture meant that little "serious at-

tention" was accorded California industry until 1900.²⁴ Likewise, Gerald Nash sees California's industrial stage as beginning in 1900.²⁵

More positive views have been expressed by historian John Caughey and journalist Carey McWilliams. Caughey writes that California manufacturing developed "hand in hand" with mining, commerce, and agriculture in northern California. McWilliams takes a different tack, arguing that California enjoyed the advantages of a head start in the competition for industry.²⁷ He sees California becoming a manufacturing center almost at the same time that it became a state.²⁸ According to McWilliams, California's early start in industrialization was a distinct departure from the norm, a great exception brought about by the novel conditions created by the Gold Rush and California's unique environment. The Gold Rush, he argues, created "certain underlying dynamics" that became the hallmark of the California economy.²⁹

THE PACE OF INDUSTRIAL GROWTH DURING THE GOLD RUSH

Disparaging comments about the pace of California industry are not supported by U.S. census data.³⁰ Statistics for California first appear in the census of 1850. While this census is not entirely accurate (incomplete and lost data resulted in an undercount), it does offer insight and a starting point. Table 9.1 shows estimates of California manufacturing from the 1850 through 1880 censuses.

The 1850 census ranked California manufacturing sixteenth (by value of output) among the thirty-six states and territories, a remarkable achievement in itself in the first year of statehood. By 1860, California manufacturing output had risen to seventh place, growing by 430.6 percent during the 1850s. This growth was far faster than that of any other state. Table 9.1 also shows the number of manufacturing establishments. Between 1860 and 1870, the number of establishments appears to drop precipitously along with a modest drop in the value of manufacturing output. This would be consistent with a revival of competition with the outside world following the war and the opening of the transcontinental railroad in 1869. However, there is a simpler explanation for the decline. Census data for both 1850 and 1860 include "mining" in the "manufacturing" category. Consequently, the Gold Rush of the early 1850s and the consolidation of mining in larger companies after those years appear in manufacturing statistics, thus distorting the data and begging the question at hand.

A better picture of industrial growth emerges when gold mining is removed from these figures. Table 9.2 shows California manufacturing with gold mining excluded. These figures reduce the size of the "manufacturing" sector reported in the census, but still show California with an industrial sector larger than nine other states and territories. More importantly, between 1850 and 1860, California's industrial sector



Two of the first iron works in California, the Pacific Iron Foundry, *left*, and the Vulcan Foundry, *right*, stand silhouetted against the waters of Yerba Buena Cove in a daguerreotype probably made in the winter of 1852–53 from the corner of First and Howard streets, San Francisco. Although steamship repairs played an important role in the early rise of foundries and machine shops, it was the needs of mining that contributed most to the growth of iron working, which by the conclusion of the Civil War was the leading manufacturing industry in the Golden State. *California Historical Society, FN-08432.*

(excluding gold mining) grew by 510.6 percent, faster than the 396.4 percent growth in gold mining. By 1860, California industry (again excluding gold mining) was ranked eighteenth, and was larger than the manufacturing sectors (with mining still included) of twenty-one other states and territories. In addition, when the distortion of gold mining is removed from manufacturing statistics, there is no decline in the number of establishments or output after 1860.

By 1870, California ranked twenty-fourth in population and sixteenth in manufacturing output (gold mining excluded). Table 9.3 shows 1870 population, manufacturing output, and output per capita for California and six other states with larger populations and larger manufacturing sectors. California manufacturing output per capita exceeded that of Ohio and Illinois, but was still well behind the others.

TABLE 9.1
California Manufacturing

Year	Number of Establishments	Value of Output (in dollars)	Percent Change
1850	1,003	12,862,522	
1860	8,468	68,253,228	430.6
1870	3,984	66,594,556	-2.4
1880	5,885	116,218,973	83.6

SOURCE: *U.S. Census of Manufactures*, 1850, 1860, and 1880. *U.S. Population Census*, 1870.

TABLE 9.2
California Manufacturing, Excluding Gold Mining

Year	Number of Establishments	Value of Output (in dollars)	Percent Change
1850	80	3,854,378	
1860	1,426	23,535,895	510.6
1870	3,984	66,594,556	182.9
1880	5,885	116,218,973	74.5

SOURCE: *U.S. Census of Manufactures*, 1850, 1860, and 1880. *U.S. Population Census*, 1870.

TABLE 9.3
Manufacturing Per Capita in 1870

State	Population	Manufacturing Output (in dollars)	Manufacturing Per Capita (in dollars)
California	560,000	66,594,556	118.92
Illinois	2,540,000	205,620,672	80.95
Massachusetts	1,457,000	553,912,568	380.17
New Jersey	906,000	169,237,732	186.80
New York	4,383,000	785,194,651	179.15
Ohio	2,665,000	269,713,610	101.21
Pennsylvania	3,522,000	711,894,344	202.13

SOURCE: Population statistics are from U.S. Department of Commerce, *Historical Statistics of the United States to 1970* (Washington, D.C.: Government Printing Office, 1975). Manufacturing statistics are from *U.S. Census of Manufactures*, 1880. Per-capita figures are the author's calculations.

Output per capita is not a flawless measure of the manufacturing sector, but it is indicative and does compensate for differences in population.

By 1880, California still ranked twenty-fourth in population and fifteenth in agricultural output, but had moved up to twelfth in manufacturing output.³¹ California's per-capita manufacturing output in 1880 was about the same as Illinois's, and still greater than Ohio's. California manufacturing per capita also increased relative to all of the states shown in Table 9.3, except Illinois.

By any measure then, California manufacturing grew rapidly during the Gold Rush. Rapid simultaneous development in mining and agriculture, or more rapid industrial growth in later years, do not alter this. It will be argued below that this rapid growth was accompanied by the development of an industrial core that laid the foundation for the state's future industrial growth. There was no significant delay or lag in developing California industry, and while the obstacles to growth were formidable, the history of California industry is a story of overcoming these obstacles, not succumbing to them.

THE EFFECT OF THE GOLD RUSH ON CALIFORNIA INDUSTRIES

The Gold Rush influenced California industries in three ways. First, the Gold Rush precipitated the population boom that created a soaring demand for a wide range of consumer and producer goods. These products often had little or no direct connection to gold mining. In these cases, there was nothing unique about the gold industry, it was merely the sector that fueled an economic expansion from which other industries benefited. Second, direct gains accrued to industries linked to the gold industry. An expanding gold industry demanded inputs and technologies from supplying industries. Third, and perhaps most important, technologies and industrial infrastructure developed for the gold industry were transferred to other sectors and products. The gold industry was the catalyst for the creation of an industrial infrastructure centered around a foundry-machine shop core.

LINKS TO CONSUMER GOODS INDUSTRIES

The increased demand for food, clothing, shelter, transportation, and construction materials was initially met mostly with imports. For example, glass bottles were in such demand that old bottles from Honolulu, Tahiti, and Mexico were collected and shipped to San Francisco.³² Imports from the East Coast followed, but breakage and transportation costs doubled their price. Local production of glass began in San Francisco as early as 1862. Similarly, the first stone house built in San Francisco was constructed in 1854 of imported Chinese marble.³³ But within two years, stone from

California quarries was replacing imports. Likewise, California initially imported all of its flour, and the first flour mills in the state got their start remilling imported flour that had spoiled in transit. Flour production expanded rapidly as California's wheat crop grew, and flour imports ceased in 1860. California flour production continued to expand, exporting to world markets.

In contrast, California breweries began immediately after the perishable beer shipped from the East Coast spoiled in transit.³⁴ By 1881, San Francisco had thirty-eight breweries, the first erected in 1850. Many California brewers specialized in "quick-brewed beer" that was brewed in only three days, no doubt sacrificing taste to speed and quantity.

San Francisco grew first as a bustling trade center before becoming the center of California industry. Table 9.4 shows the date and location of selected California industries established by 1860. San Francisco's domination is apparent, as is its diversity. It is also hard to discern any delay or lag here.

By 1860, California's largest industries, in order of size of output, were flour milling, lumber, sugar refining, machinery (including steam engines), and malt liquors. The largest industries in 1870 were flour milling, lumber, machinery, boot and shoe findings, sugar refining, quartz milling, and cigar making. These were mostly consumer goods industries (except machinery and, to a certain extent, lumber) that thrived in the general prosperity initiated by the Gold Rush.

Flour and lumber mills proliferated. Ninety-one flour mills and 279 lumber mills were in operation by 1860, compared to only 2 and 10, respectively, in 1850. The growth of California flour milling is shown in Table 9.5. Flour mills produced half of the food (by value) produced in the state. In addition, flour and lumber mills were capital intensive, further augmenting the demand for California machinery. California flour mills employed more than 12 percent of the state's steam engines in 1870.

California boot and shoe production is shown in Table 9.6. The sharp increase after 1860 in output-value probably reflects the disruption of imports during the Civil War. The figures in Table 9.6 also suggest that California producers were able to weather the competition from the resumption of imports following the end of the war and the completion of the transcontinental railroad.

California woolen mills provide a good example of how California's post-gold-rush agricultural success has drawn attention away from the state's industrial progress. California's first woolen mill was opened in San Francisco in 1858.³⁵ By 1881, there were thirteen mills operating in the state, consuming 20 percent of the state's wool and producing woollens valued at \$4.85 million. Woolen imports in that year amounted to another \$5 million to \$6 million. Eighty percent of California wool was exported unworked. According to Hittell, the source for these figures, this high export ratio was "one of the most striking examples of the underdeveloped condition

TABLE 9.4
Selected California Consumer Industries Established by 1860

<i>Industry</i>	<i>Year First Firm Established</i>	<i>Location</i>
Beer	1850	San Francisco
Book Publishing	1850	San Francisco
Book Binding	1860	San Francisco
Bricks	1854	Sacramento
Coffee Grinding	1850	San Francisco
Coffins	1860	San Francisco
Comforters	1860	San Francisco
Cordage	1856	San Francisco
Confectionery	1849	San Francisco
Chocolates	1852	San Francisco
Cordials	1852	San Francisco
Crackers	1849	San Francisco
Distillery	1855	San Francisco
Furniture Shop	1850	San Francisco
Furniture Factory	1857	San Francisco
Gold Beating	1853	San Francisco
Granite Quarry	1853	Mormon Island
Jewelry	1853	San Francisco
Lime Kiln	1853	Santa Cruz
Macaroni	1855	San Francisco
Mustard Grinding	1850	San Francisco
Woolen Mills	1858	San Francisco
Paper	1852	Alviso
Printing	1851	San Francisco
Plumbing	1853	San Francisco
Sailmaking	1853	San Francisco
Sugar Refinery	1855	San Francisco
Upholstery	1853	San Francisco
Vinegar	1854	San Francisco

SOURCE: Compiled by the author from various sources.

of our manufacturing industries."³⁶ However, if California woolen mills had produced woollens sufficient to replace all of her imports in 1881, it still would have exported 60 percent of its wool. The problem, if that is what it should be called, was not an underdeveloped woolen industry, but rather a large wool output.

The Gold Rush also saw the beginnings of many well known names and labels. Domingo Ghirardelli opened a chocolate factory in San Francisco in 1852. Claus Spreckels began his sugar refinery business in San Francisco in 1863. Levi Strauss



David Hewes's steam paddy, which carried sand for bay fill, passes before the San Francisco Sugar Refinery at Harrison and Eighth streets. Constructed in 1856 by a corporation headed by the Forty-niner George Gordon, this was the first sugar refinery in California and the beginning of an industry that ultimately would emerge as the most economically important in the city. Relying at first on raw sugar from Batavia and Manila, Gordon's refinery was capable of processing sixteen thousand pounds of sugar a day. *California Historical Society, FN-10655.*

originally made trousers for California miners and workers. Folgers Coffee and Schilling Spices both got their start in San Francisco. The Studebaker Brothers, later automobile pioneers, started in a carriage shop in the gold-mining town of Placerville.

LINKS TO PRODUCER GOODS INDUSTRIES

Many industries were connected to the gold industry through supplier-customer links. These could be either forward or backward linkages. Forward linkages are connections with "downstream" industries, that is, industries that utilize the product. In contrast, backward linkages are "upstream" connections to industries that provide raw materials or machinery used in the production of the product in question.

TABLE 9.5
California Flour Mills

Year	Number of Mills	Value of Output (in dollars)	Percent Change
1850	2	754,192	
1860	91	4,620,952	512.7
1870	115	9,036,386	95.6
1880	150	12,701,477	40.6

SOURCE: U.S. Census of Manufactures, 1850, 1860, and 1880. U.S. Population Census, 1870.

TABLE 9.6
California Boot and Shoe Production

Year	Number of Establishments	Value of Output (in dollars)	Percent Change
1860	70	179,235	
1870	42	2,223,457	1,140.5
1880	546	4,666,814	109.9

SOURCE: U.S. Census of Manufactures, 1860, 1880. U.S. Population Census, 1870. No data is available for boot and shoe production in 1850.

Forward linkages to gold mining included jewelry making, gold beating (to produce gold leaf), and coin minting. Jewelry and gold beating were undertaken in San Francisco, but neither was particularly significant. In 1850, however, private mints in San Francisco began minting gold coins to alleviate California's currency shortage. These private mints operated until a U.S. mint opened in San Francisco in 1854.³⁷

While forward linkages were not extensive, gold's backward linkages were very significant. To appreciate these connections, it is important to see gold mining as an *industry*, rather than as a discovery or find. Perhaps the most common image of the California gold miner is that of a bearded, grizzled prospector bent over a stream, panning for gold. While this may have been typical of many of the early Forty-niners, it does not accurately reflect gold mining after it quickly became more of an industry and less of an adventure.

There were different types of gold mining with different links to other industries. The Forty-niners used simple placering techniques, including panning and the use of rockers, toms, and sluices. Before 1860, placer gold mining accounted for about 99 percent of the gold produced in California.³⁸ All placering techniques used water, motion, and trapping mechanisms such as ridges and cleats to separate gold from mud and gravel. While larger gold flecks could be picked out of the pan or sluice,



The Pioneer Woolen Mills at Black Point, San Francisco, 1865. Though wool was sheared, carded, spun, and woven at the Franciscan missions at least as early as 1786, it was not until nearly three-quarters of a century later that the manufacture of woolen goods arose as an important industry in California. *Courtesy Society of California Pioneers.*

this mechanical separating left most of the gold behind. To improve yields from placering (and other types of gold mining as well), mercury, or quicksilver as it was commonly called, was added to concentrated ores. The mercury formed an amalgam with gold and silver. The amalgam was collected and the mercury driven off with heat, leaving the precious metals behind. Some of the mercury could be recovered for subsequent use, and the gold and silver were separated with acids. The backward linkages from placer mining thus included links to quicksilver, lumber, and the acid industry. To meet the demand from mints and mines, acid production in San Francisco began in 1854. Lumber was needed for rockers, toms, and sluices. Quicksilver, mined from California mines, was indispensable to gold and silver recovery until the invention of the cyanide process in 1890.

By the mid-1850s, however, simple placer mining sites had been played out. Hydraulic mining and dredging, more advanced forms of placering, were developed to

work less accessible ores. Both hydraulic mining and dredging are very capital intensive, with more extensive and significant links to other enterprises. California industry expanded to meet the demand for leather hoses, pumps, and nozzles. The dams and flumes required for hydraulic mining also dramatically increased the demand for lumber. Lumber mills responded with special planks, narrower at one end so they could be readily attached end to end, to construct the long wooden channels for hydraulic sluices. Leather hoses were made in San Francisco starting in 1857. California oak-tanned leather was stronger than leather used by eastern and European hose producers.³⁹ As a consequence, California hoses were superior products, stronger and less expensive. Eventually, California leather hoses were exported around the world and were used extensively by fire departments until rubber hoses replaced them after 1874. Nozzles, first made of wood, were soon crafted out of metal in California foundries. Dredging was initially tried in 1850 on a river boat converted to the task of capturing gold from river bottoms near Marysville.⁴⁰ However, dredging did not become important until after 1880, when court rulings limited hydraulic mining. The Risdon Iron and Locomotive Works of San Francisco produced a larger dredge in the 1890s that ignited interest in the technology. Dredging remained an important mining technique into the 1940s.

Quartz, or hardrock, mining had the greatest impact on California industry. Gold embedded in quartz was discovered as early as 1849, and was followed by a wave of speculative excitement. But the excitement ended in a bust, and the quartz mining that survived was carried out on a small and unprofitable basis for many years. Rodman Paul observed that as late as 1859-60, the cash returns to quartz mining could be written off as unjustified were it not for the unique technologies invented in this activity.⁴¹ Later, hardrock gold mining in California, Comstock silver mining, and the development of a California mining equipment industry owed much to the persistence of these early ventures.

Hardrock mining entailed tunneling to reach the ore, digging it out and bringing it to the surface, and finally crushing and processing the ore. All stages of this activity were capital intensive and required specialized machinery. To get at the ore, drills and explosives were used to dig through rock. San Francisco foundries and machine shops developed drills that reduced friction, breakage, and fuel consumption.⁴² Hand drills were quickly replaced by steam-driven patent drills. Steam engines were originally taken down into the mines to power the drills, but this drastically reduced their efficiency. The air compressor permitted steam engines to remain above ground with hoses supplying the compressed air to the drills. More leather hoses were needed.

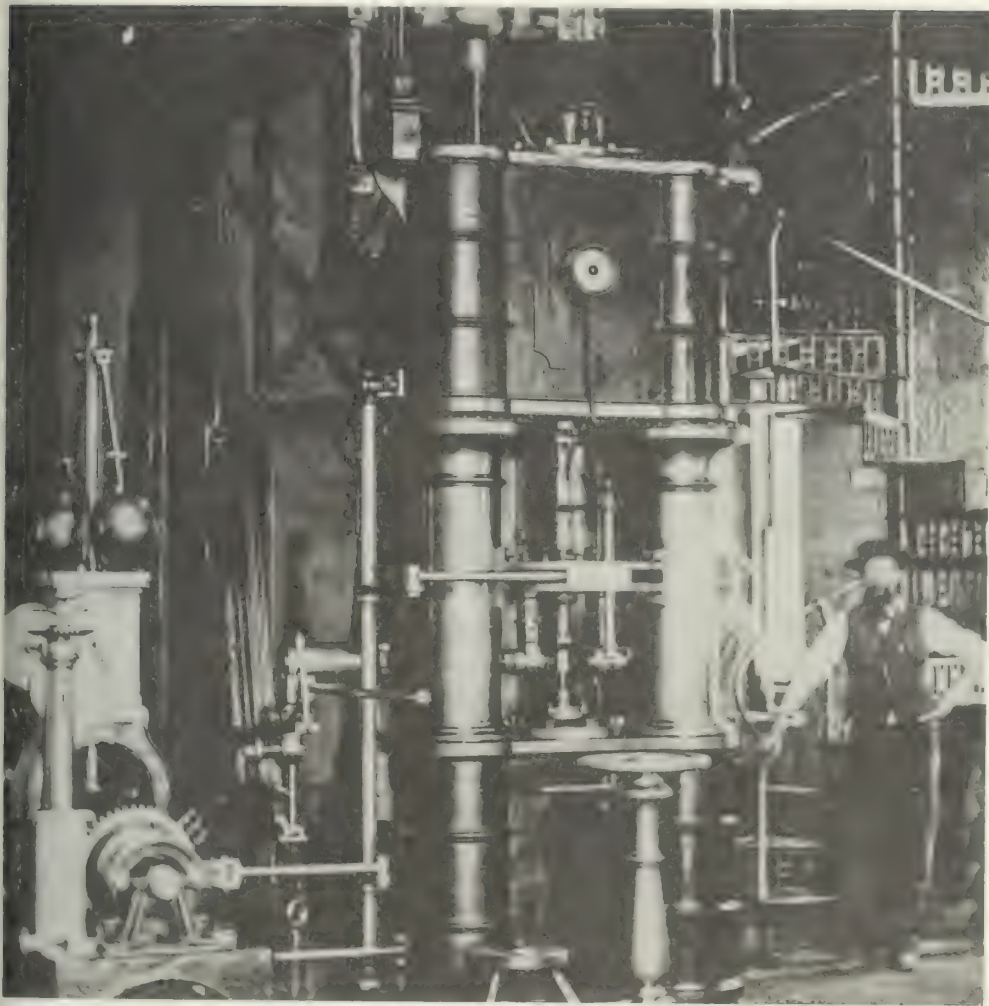
Explosives were also used to get at ore. Imported black powder was originally used, but transporting it was dangerous, and shipments were disrupted by the Civil War. Within the state, the California Powder-Works opened near the city of Santa

Cruz in 1861 to produce black powder.⁴³ The company subsequently opened a second facility near Point Pinole to produce its highly explosive "Hercules" powder. Acids were used in the manufacture of these explosives, leading to the development of yet more satellite industries. California explosives were shipped throughout the West for use in mines and railroad construction and were exported to Canada, Hawaii, and Latin America, especially Mexico.⁴⁴ California's explosives industry, however, did not lead to the development of an armaments industry, at least not in the nineteenth century. The manufacture of guns remained an eastern specialty. Blasting techniques developed in the gold mines, on the other hand, were applicable to the mining of other minerals. One of the more interesting applications was found in California's marble quarries, where precision blasting of marble blocks was perfected.

All but the shallowest of hardrock mines required drainage, venting, and hoisting. Timbers and lumber were needed for hoists, supports, and shoring. Hoisting machines and steam engines were produced by California foundries and machine shops; San Francisco wire and cable makers made cable for hoists and ore trams. In addition, most mining machines used leather belts in conveyers and drives; by 1861, four San Francisco firms manufactured leather belts superior to competing eastern and European products.⁴⁵

San Francisco foundries also produced most of the pumps used to pump water out of California and Comstock mines.⁴⁶ The Risdon Iron and Locomotive Works manufactured water pipe for use in Virginia City, as well as irrigation pipe for Hawaiian plantations, and made the much-acclaimed pumps for the Chollar-Norcross Mine.⁴⁷ Pumps provide an interesting example of how California firms overcame the obstacles working against West Coast manufacturing. California foundries produced mostly mining pumps, which were large and designed and manufactured to order. California foundries relied on their design expertise, their proximity to mining company customers, and superior service to compete against cheaper eastern imports. Although they succeeded in securing the bulk of the mining business, they could not compete with eastern firms in the market for smaller pumps for cisterns, household use, or small business applications.⁴⁸ Small eastern pumps were mass-produced, employing cheap child labor, and sold for up to 60 percent less than local, West Coast rivals. California producers enjoyed neither the labor force, the low wages, nor the market size that would have enabled them to compete in this market.

California steam engines were also developed for the mines. The 1870 census records forty-two steam engines in use in California mines, many made by California companies.⁴⁹ California ranked ninth in the number of steam engines used in mines. This is all the more impressive in light of California's water-power resources. California also ranked first in the use of waterwheels as a power source in mines, employing 70 of the 134 waterwheels in use in the United States in 1870. While steam



A workman poses with one of the massive steam engines at the mill of the Gould & Curry Mine, Virginia City. On the Comstock Lode, powerful engines manufactured in San Francisco drove a range of hardrock mining machinery, including pumps, compressors, hoists, and stamp mills. *Courtesy Huntington Library, San Marino, Calif.*

engines were developed for the mines, their use spread to other California industries. In 1870, there were 604 steam engines in use in the state's manufacturing establishments. The lumber industry, flour mills, distilleries, and the iron trades often utilized steam power. The assertion that California industry lagged because it failed to embrace steam engines is simply not correct.

Processing quartz ores proved to be a formidable challenge. Ore-bearing rock was first broken into smaller, more manageable pieces. This was followed by grinding. California initially imported grinding machines from Europe for this task, but

these, according to John Hittell, proved to be "fancy and usually worthless."⁵⁰ They were quickly abandoned in favor of *arrastras*, simple Mexican devices that dragged heavy stones over the ore. A Chilean version substituted a mill stone.

Slow and ineffective, *arrastras* were soon replaced by California stamp mills, which used heavy iron feet, mechanically lifted and dropped, to grind the ore. They were produced by California foundries and machine shops. Rodman Paul calls hydraulic mining and the California stamp mill the crowning technological achievements of the California Gold Rush. The stamp mill was especially important in encouraging the development of local foundries and mining technology.

Because about two-thirds of the gold in quartz ores was not recovered by early processing methods, California miners, working with local foundries and machine shops, rapidly developed other techniques to improve yields. Paul claims that more progress was made in the first twelve years of the California Gold Rush than had occurred over the previous several centuries.⁵¹ Californians invented concentrators, machines that generally used conveyer belts and shaking motion to further concentrate ores before amalgamation. They also developed a second grinding process, often with mercury added. In the late 1850s, metal pans with mechanical stirring devices and steam heat emerged to facilitate amalgamation. These techniques were later incorporated into the vats used in the Washoe process on the Comstock.

All these mining developments stimulated California industry. The effect on the metal working industries appeared immediately in census data. In 1850, half the state's manufacturing establishments not involved in gold processing were blacksmith shops. Since there were no separate census categories for "foundries" or "machine shops," these were included in blacksmithing. In terms of value of output, California blacksmithing ranked third in the nation, behind only New York and Pennsylvania. This is remarkable for a state that was less than two years old. By 1880, the output-value of California foundry and machine shops, now separately enumerated, ranked eleventh among the states, but seventh on a per-capita basis.⁵² In blacksmithing, California ranked seventh in output, and second in output per capita.

The size of the iron working trades is obscured by the increasing complexity of the census. This category includes blacksmithing, foundries and machine shops, wire and cable making, iron pipe, pumps, steam engines, saws, shipbuilding, wheelwrighting, and other types of enterprises. These activities formed the core of nineteenth-century industry. After 1850, successive censuses expanded the reporting categories. While this was more accurate and useful for some purposes, the growth of iron working in the aggregate is lost. Table 9.7 recombines these separate categories in the census into an aggregate "iron working trades" industry. The increase in iron working trades, despite the state's poor natural endowment of iron ores and coal, is striking.

TABLE 9.7
California Iron Working Trades

Year	Number of Establishments	Value of Output (in dollars)
1850	42	1,158,200
1860	376	5,853,158
1870	861	8,518,768
1880	994	10,889,437

SOURCE: Calculated from data in *U.S. Census of Manufactures*, 1850, 1860, and 1880. *U.S. Population Census*, 1870. "Iron working trades" includes all iron working census categories.

THE SPREAD OF GOLD INDUSTRY TECHNOLOGIES

Technologies developed for the gold industry were not confined to that sector. As pointed out above, such devices as hoses, steam engines, and pumps all found their way to other sectors of the economy. Nathan Rosenberg has called this process "technological convergence," and maintains that it was vital to creating the machine tool industry on the East Coast in the early nineteenth century.⁵³ The textile industry, he argues, was the initial catalyst for technological convergence on the East Coast.

Technological convergence can be seen in California, but with gold mining serving as the catalyst. The blacksmith shops, foundries, and machine shops that produced the equipment for the gold industry also created technologies and an industrial base that could later be employed in shipbuilding, in the defense industry, and in other types of manufacturing. By the 1880s, for example, California firms were supplying most of the machinery used on Hawaiian plantations and in sugar cane processing, replacing European imports.⁵⁴ California's hydroelectric power also had early connections to the Gold Rush.⁵⁵ The first hydroelectric operation in the state was undertaken in northern California in 1879. Soon after, Lester A. Pelton, a millwright and carpenter in the Mother Lode town of Camptonville, created the turbine wheel generator, building on technology developed for gold mining.

The cable industry provides another example of technology dissemination. A. S. Hallidie, president of the California Wire-Works Company, made screens for quartz mills and flour mills, riddles, birdcages, fenders, fireguards, and many other wire products for use in kitchens and industry. In 1868, Hallidie invented a wire ropeway for transporting ores. Soon after, he used the same technology to invent the cable railway, which powers San Francisco's famous cable cars.⁵⁶

California's oldest foundry, the Union Iron Works, also illustrates how gold mining technologies were transferred to other industries. Founded in 1849 by three

brothers, Peter, James, and Michael Donahue, the Union Iron Works overcame the iron shortage by buying scrap iron made plentiful by the fires that destroyed San Francisco in the early 1850s. As did a host of other San Francisco foundries, it used the scrap metal and iron imported as ballast to make mining equipment. The Union Iron Works produced a large share (90 percent by one estimate) of the mining equipment used by California and Comstock mines.⁵⁷ From mining equipment, the Union Iron Works branched out to supply other iron working industries. It built the first locomotive on the West Coast in 1865. It repaired ships, made ship engines, and assembled ships, including the first steel ship made on the West Coast, the collier *Arago*, in 1885. The company then won one of the first major Navy construction contracts awarded a California firm and built the first steel warship produced on the West Coast, the *Charleston*, in 1888. In addition, Peter Donahue was instrumental in constructing street railroads.

One striking difference between California producers and their eastern counterparts that encouraged technology dissemination was the degree to which California producers did *not* specialize. Eastern foundries and machine shops tended to specialize in the production of a few products. However, with many smaller local markets, California foundries often made more than twenty products, "everything that is in demand, from mining-machinery, locomotives, steamship engines, sugar-mills, and architectural iron-work, down to the various small articles required for every-day use."⁵⁸ Diversity was also typical of California's agricultural equipment producers.⁵⁹

The difference between eastern and western foundries was probably due to the wider markets in the East, which facilitated specialization. It was also due to the mining origins of western foundries. Mining equipment was very diverse and often custom-made. San Francisco foundries survived by staying flexible, by experimenting, by innovating, and by producing a wide array of products. Carey McWilliams argued that a willingness to experiment was a long-standing hallmark of California that had taken root in the state's mining past.⁶⁰ Equally important, the diversity of California foundries and machine shops probably speeded up the process of technological diffusion because it became more of an in-house process on the West Coast, facilitating easier transfer of technology from product to product.

Finally, the discovery of other minerals was often a by-product of the search for gold during the Gold Rush. Silver, borax, petroleum, coal, chromite, and copper were discovered as gold seekers scoured the countryside. The Comstock Lode, primarily silver, was discovered by California miners looking for gold.

There was, however, one notable exception to this pattern. When California was still part of Mexico, quicksilver was discovered at New Almaden, near San Jose, in 1845. While its discovery and initial development preceded Marshall's discovery, the New Almaden Mine (and the other California quicksilver mines that soon fol-



San Franciscans press forward to watch the launching of the ironclad monitor *Camanche* on November 14, 1864. Assembled at the Union Iron Works with parts manufactured in the East and sent around the Horn, it was the second warship built in California. Slightly more than twenty years later, the Union Iron Works made a successful bid to construct the U.S. Navy's Cruiser No. 2, the *Charleston*, one of the first vessels in the country's "New Navy" and the ship that inaugurated the modern era of shipbuilding in California. *Courtesy Society of California Pioneers.*

lowed) enjoyed robust demand during the Gold Rush. Among mineral industries, quicksilver was second only to gold in output-value until the end of the nineteenth century. More importantly, it is hard to imagine what the Gold Rush and the Comstock silver rush would have been like in the absence of local supplies of quicksilver. In the last half of the nineteenth century, California produced half of the world's supply of mercury, breaking a world quicksilver cartel by flooding world markets with cheap quicksilver.⁶¹

CONCLUSION

Through backward linkages, a California industrial nexus was created in the Gold Rush. Its features and characteristics were determined by the responses of industrial firms to increasing consumer demand and to the demands emanating from the gold mining industry. In the process, California's industrial capacity was created. An industrial core, centered around foundries, machine tool companies, and the iron working trades, developed. This base became the foundation for future industrial expansion.

While the Gold Rush increased the demand for both consumer and producer goods, care must be taken to keep this factor in perspective. Demand is never sufficient alone to explain development. Boomtowns the world over have generated similar demands, but few managed to create an economic base that survived the exhaustion of the mineral that brought them into being. Virginia City, for example, did not become another San Francisco. Gold presented the opportunity, but the real story is found in the response. Perhaps the greatest legacy of the Gold Rush was not its ability to attract gold miners, but its ability to attract entrepreneurs who seized the opportunities that gold offered.

NOTES

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2. Robert Cleland and Osgood Hardy, *The March of Industry* (San Francisco: Powell, 1929), 36.
3. *Ibid.*, 1.
4. *The Californian*, May 29, 1848.
5. John S. Hittell, *The Resources of California* (San Francisco: A. L. Bancroft, 1879), 186.
6. Cleland and Hardy, *March of Industry*, 36.
7. Rolle, *California*, 166.
8. U.S. Department of Commerce, *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: Government Printing Office, 1975), 25.
9. John S. Hittell, *The Resources of California* (San Francisco: A. Roman, 1862), 304.
10. Hittell, *Resources of California* (1879), 183-84.
11. *Ibid.*
12. *Ibid.*
13. *Ibid.*
14. *Ibid.*, 184.
15. Rolle, *California*, 229.
16. Earl Pomeroy, *The Pacific Slope* (Lincoln: University of Nebraska Press, 1965), 111.
17. *Ibid.*, 112.
18. *Ibid.*, 113.
19. William A. Bullough, Richard J. Orsi, and Richard B. Rice, *The Elusive Eden: A New*

History of California (New York: McGraw-Hill, 1996), 279. The role of energy shortages in deterring the development of California industry has been discussed in James C. Williams, *Energy and the Making of Modern California* (Akron, Ohio: University of Akron Press, 1997).

20. Cleland and Hardy, *March of Industry*, 134.
21. Rolle, *California*, 229.
22. W. H. Hutchinson, *California: Two Centuries of Man, Land, and Growth in the Golden State* (Palo Alto, Calif.: American West Publishing, 1969), 207.
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24. *Ibid.*, 133-34.
25. Gerald D. Nash, "Stages of California's Economic Growth, 1870-1970: An Interpretation," in *Essays and Assays: California History Reappraised*, ed. George H. Knoles (Los Angeles: Ward Ritchie Press, 1973), 39-53.
26. John W. Caughey, *California: A Remarkable State's Life History* (Englewood Cliffs, N.J.: Prentice-Hall, 1970), 202.
27. Carey McWilliams, *California: The Great Exception* (New York: A. A. Wyn, 1949), 216.
28. *Ibid.*
29. *Ibid.*, 214.
30. Census data refers to *U.S. Census of Manufacturers*, taken in 1850, 1860, and 1880. There was no census of manufacturing in 1870. However, manufacturing data is found in the 1870 *U.S. Population Census*.
31. *U.S. Census of Manufacturers* (1880), xii.
32. John S. Hittell, *The Commerce and Industries of the Pacific Coast of North America* (San Francisco: A. L. Bancroft, 1882), 524.
33. California Division of Mines, *Geologic Guidebook of the San Francisco Bay Counties*, Bulletin 154 (San Francisco: Division of Mines, 1951), 235, 238.
34. Hittell, *Commerce and Industries of the Pacific Coast*, 572-75.
35. *Ibid.*, 435. The following discussion is from this source.
36. *Ibid.*, 436.
37. For a discussion of private coinage in California, see Edgar H. Adams, *Private Gold Coinage of California, 1849-55: Its History and Its Issues* (Brooklyn: Edgar H. Adams, 1913).
38. Rodman W. Paul, *Mining Frontiers of the Far West, 1848-1880* (New York: Holt, Rinehart and Winston, 1963), 31-32.
39. Hittell, *Commerce and Industries of the Pacific Coast*, 520-22.
40. This discussion is drawn from Bullough, Orsi, and Rice, *Elusive Eden*, 196. Gold dredging is also discussed in Lewis E. Aubury, *Gold Dredging in California*, California State Mining Bulletin No. 57 (Sacramento: California State Printing, 1910).
41. Paul, *Mining Frontiers of the Far West*, 33.
42. Hittell, *Commerce and Industries of the Pacific Coast*, 657.
43. *Ibid.*, 709.
44. *Ibid.*, 707.
45. *Ibid.*, 521.
46. *Ibid.*, 657.
47. *Ibid.*, 660.
48. *Ibid.*, 658.
49. *U.S. Population Census, 1870*, 760. The figures immediately following on steam engines are from this source (pp. 496-98).

50. Paul, *Mining Frontiers of the Far West*, 31.
51. *Ibid.*, 31-32. The following discussion is from this source as well.
52. *U.S. Census of Manufacturers* (1880), xxi.
53. Nathan Rosenberg, "Technological Change in the Machine Tool Industry 1840-1910," *The Journal of Economic History* 22 (December 1963): 414-43.
54. Hittell, *Commerce and Industries of the Pacific Coast*, 653.
55. Hutchinson, *California*, 218-19.
56. Hittell, *Commerce and Industries of the Pacific Coast*, 425-26, 668.
57. Ruth Teiser, "The Charleston: An Industrial Milestone," *California Historical Society Quarterly* 25 (March 1946): 39-52. The following discussion of the Union Iron Works is drawn from this source, as well as from Richard H. Dillon, *Iron Men* (San Francisco: Cantelada Press, 1984).
58. Hittell, *Commerce and Industries of the Pacific Coast*, 659.
59. For a similar observation about California agricultural implement producers, see McWilliams, *California*, 224.
60. *Ibid.*, 221.
61. For a discussion of New Almaden and California quicksilver see David J. St. Clair, "New Almaden and California Quicksilver in the Pacific Rim Economy," *California History* 73 (Winter 1994/95): 278-95; Jimmie Schneider, *Quicksilver: The Complete History of Santa Clara County's New Almaden Mine* (San Jose, Calif.: Zella Schneider, 1992); David J. St. Clair, "California Quicksilver in the Pacific Rim Economy," in *Studies in the Economic History of the Pacific Rim*, ed. Sally M. Miller, A. J. H. Latham, and Dennis O. Flynn (London: Routledge, 1998), 210-33.

From Hard Money to Branch Banking

California Banking in the Gold-Rush Economy

Larry Schweikart and Lynne Pierson Doti

If Americans associate any event with the early history of California, it is the Gold Rush. While the impressions of most people are that the Gold Rush "came and went," more or less, with little lasting legacy other than to alert outsiders to the vast wealth to be found in California, the economic development of the state actually took on much of its early form based on the experiences of the Forty-niners. Banking and the financial sector, in particular, evolved in often distinctive ways because of the gold-rush economy. More important, the abundance of gold on the West Coast provided an interesting test case for some of the critical economic arguments of the day, especially for those deriving from the descending—but still powerful—positions of the "hard money" Jacksonians.¹

By the time banks appeared in California, commercial banking was well established east of the Mississippi, and had made inroads in Missouri.² The process by which banks came into existence was common, but not uniform: usually a merchant or freight agent would accept deposits from local entrepreneurs who wanted a safe storage for their money or gold, exchange drafts written from out-of-town companies and pay out gold, and often extend credit to valued customers. The combination of accepting deposits, exchanging drafts, and making loans endowed those merchants with the essential functions of banks. When their business reached such a level that it equaled or surpassed their mercantile or freight activities, they often sought a banking charter from the state legislature, although not all "bankers" had charters. The charter usually empowered the banker to issue paper money, called "banknotes" or simply "notes." Money thus circulated, and competed, against other privately issued money by relying on gold as a standard of measurement, since all notes had to be convertible into gold at some point. More often than not, however, the real determinant of a note's value rested on its reputation—or, more precisely,



A row of solid brick banks lines the west side of Montgomery Street in a charming watercolor executed in the early spring of 1851 by an unidentified French artist. Visible, *left to right*, are the offices of the San Francisco Savings Bank, E. Delessert & Cordier, James King of William, and, across Commercial Street, the bank of B. Davidson, agent for Messrs. Rothschild. The concentration of so many financial institutions had, the previous year, led a newspaper to declare that "this beautiful street may well be called the Wall Street of San Francisco." *California Historical Society*.

that of the issuer—and many banks reflected the apparently paradoxical condition of having low reserves of gold and yet high levels of soundness and solvency. Of course, that paradox was understood if it was kept in mind that *instability* was related to a weak reputation more than to low reserves of gold.³

When banking appeared in California, the debate over whether banks should be prohibited from issuing notes at all was decided in favor of the private note. The Panic of 1837 had made several states hostile to banks, with Arkansas and Wisconsin actually prohibiting banks (as Texas later would do). Of course, note-issuing banks still appeared, generally under the inventive title of "Marine and Fire Insurance and Banking Company," or "Railroad and Banking Company." Governments found they could not eliminate the demand for banks—or paper money—and of-

ten, "bankless" states, such as Iowa in the 1850s, found that the business they lost to neighboring states caused them to rethink their inflexible positions.¹ California, therefore, by 1849, had plenty of evidence about what worked and what did not work when it came to bank structure. Yet none of the experiences of banks in other states had the key ingredient that California possessed: abundant gold, capable of sustaining a metallic currency.

The discovery of gold on January 24, 1848, at a mill owned by John A. Sutter sparked a stampede to the mines of northern California. Likened to a "hysteria" or to a dam bursting, the Gold Rush brought in thousands of people from everywhere in the world, and with them came a new outlook on life: Mark Twain facetiously reported haircuts going for \$1,000, and yet people "happily paid it, knowing that we would make it up tomorrow."² Gold poured out of the mines and streams in large enough amounts to run any economy, and indeed, "if a metallic-based economy could survive anywhere, if metallism, as the Jacksonians preached, was a desirable alternative to banks and paper money, then it should have taken root . . . in California."³ According to the Jacksonian principles of banking, there should have been little need for bankers, the much disparaged "middlemen." Instead, the California experience demonstrated the critical role that financial intermediaries play in evolving market systems, even when a suitable "money" was widely available.

Prior to the Mexican-American War in 1846, California lacked banks altogether and had a chronic shortage of paper currency and minted coin. Indians had devised the earliest common currency of the state, meticulously carved round pieces of shell with holes in the center so the "coins" could be strung on long leather thongs to create an early wallet. When the Spaniards arrived and began trade, the strings of coin traded at the rate of a yard to a Spanish dollar. Still, from the founding of the first mission in San Diego in 1769 until Mexican independence in 1821, most trading was by barter. As the missions were closed by the Mexican government after 1833, the economy focused on a few hundred large cattle ranches. These ranchos were basically self-sufficient empires with little need for banks or money. Cowhides, dry, flat, and stiff enough to sail like Frisbees off a cliff, were known as "California dollars."⁴ Tal-
low, hides and furs, classed under the general moniker "fur money," had been a constant in the frontier fur trading areas from the Mississippi to the Rockies, and the Bank of St. Louis, on the main route east from the trapping grounds, accepted pelts and issued money on that security.⁵ California cattle hides, also called "California Bank Notes," circulated as a popular form of early money.⁶ As an example, Captain William Davis of the USS *Eagle* recorded a transaction in which he sold some goods to Friar Mercado of the Santa Clara Mission in 1844 and received two hundred hides.⁷ Despite the obvious fact that a skin-based currency demanded little in the way of safes or vaults, Davis claimed himself as the one to have brought the first safe to California in 1846.⁸

After the state was abruptly wrested from the control of Mexico by the war in 1846, the American population slowly increased. Settlers following the Oregon Trail to the Northwest veered south to find the fabled lush and massive Central Valley between the mountains and the coast. Soldiers passing through Monterey, San Diego, and inland long after remembered the ideal climate and the vast amount of empty land. Some returned, and some influenced others to settle in California. The economy began to develop markets as many of the ranchos were subdivided and the smaller landholders were less self-sufficient, and these markets created a need for money. American dollars brought by settlers became the most common, though still rare, money.

As elsewhere in the West, the local residents expressed more of a concern for the scarcity of currency and coin than for the absence of banks. As two historians of the subject concluded, the "cry 'There is no money in Kansas' might well have described the situation in neighboring plains states as well," and also in California, at least before the discovery of gold.¹² Of course, everything changed when James Marshall, on January 24, 1848, presented a sample of ore from the South Fork of the American River to John Sutter, a Swiss-born adventurer who had hired a group of Mormons to construct a sawmill for him. Quickly, the California economy was changed: by summer, reports of gold had drawn hundreds of people from other parts of California to the region, and then, as news of the discovery spread, thousands of prospectors and miners arrived at San Francisco, from which they would take boats up the Sacramento River, then walk uphill to the gold fields some forty miles from Sacramento. There, they found gold in impressive—indeed, absolutely phenomenal—amounts. Between 1848 and 1860, according to one estimate, gold exports from California topped \$650 million at \$16 an ounce.¹³

San Francisco reflected the boom in its population, which had stood at barely 150 in 1846, only to swell to 50,000 a decade later. Each new immigrant seemed to add to the news traveling back home that anyone could get rich in California, and regular reports by field agents of express companies, such as William Rochester of American Express in 1851, contributed to the excitement. That year, gold production rose from \$41 million to \$76 million, leading one resident to comment, "Gold never was known so plenty in San Francisco as this season."¹⁴ Yet despite the abundance of gold, the United States did not open a mint in San Francisco until 1854, meaning that the scarcity of coin persisted amidst an ocean of gold. All customs had to be paid in U.S. coin, which led to hoarding of the few pieces of metallic currency that existed.¹⁵

Using gold ore or dust for daily business transactions proved difficult because the measurement and valuation of gold in such forms constituted an inexact science, even for the experienced. Gold as it came from the mines was rarely pure. Even nuggets could contain spots of other metals or dirt, and the more common "dust" really consisted of several materials mixed together. Dealers usually weighed the dust

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NEW YORK, August, 1855.

An advertisement from the San Francisco Business Directory of 1856 for Kellogg & Humbert, located at 104 Montgomery Street. In addition to providing assaying services, the firm produced gold bars and operated a private mint. *California Historical Society, FN-30964.*

to ascertain value, and an experienced assayer prided himself on his ability to determine by color exactly where a particular batch of gold had been found.

The difficulty of determining the purity of gold as it came from the mines was only the first problem of using gold as money. Since value depended on weight, every party to a transaction wanted scales. Not only did a miner on a shopping trip have concerns about carrying his leather pouch of gold along, but he had to bear a second pouch containing a miniature set of scales and weights. Differences in calibration between buyers' and sellers' scales placed a premium on negotiation skills. No wonder at least two dozen private mints operated in California.¹⁶ Those mints charged customers to refine their gold and exchange it for coins stamped with the mint's verification of weight and purity. Miners worried about protecting their gold too, after it was mined and especially when they were in town for their nights out after replenishing their supplies.

A dependence on metallic money presented another problem for miners and merchants in California. At first, there were no local sources of mining equipment. Clothing, blankets, flour, and whiskey all had to come from the East Coast or another distant location. To restock the stores, someone had to travel back with the gold to make the purchases. Many miners also wanted to send payments back east or out of the country to families left behind.

Valuing, transporting, and safely storing gold all contributed to stimulating early banking functions in California. But identifying the "first bank" in California involves determining which of several banking functions or services an individual or business provided—not an easy task, considering that many of the early merchant and entrepreneurs performed most banking functions at some time or another, but seldom all functions at the same time. As late as 1847, of the 169 men who provided their occupations for a newspaper article, none listed themselves as bankers. Robert A. Parker, who later established the Parker House Hotel, was possibly San Francisco's first banker, conducting primitive banking operations from his store on Dupont Street in 1848.¹⁷ Other firms, for example, Mellus, Howard & Co. and B. R. Buckalew in San Francisco and Dickson and Hay in Sacramento soon advertised themselves as "gold dealers," but undoubtedly exchanged drafts and took deposits.¹⁸

The early gold dealers had provided drafts or exchange for gold, giving the prospectors a liquid and divisible medium for a less liquid and less divisible metal or for notes from other regions that were less well known, and therefore, less reliable. Dealers purchased gold at \$8 to \$16 an ounce and sold it on the East Coast for \$18. This operation allowed merchants and miners to pay local dealers in gold, and get drafts that could be more cheaply and easily transported to pay suppliers or family. Gold dealers then shipped gold in large shipments for sale on the East Coast. Bringing money from outside California was more of a problem, since gold or gold-

backed paper was the only locally accepted money. Exchanging local paper for out-of-town notes (called "foreign" notes, even if they originated in another California town) carried a fee—a "discount" based on distance and risk—to redeem the draft or note. An early advertisement for C. V. Gillespie, a San Francisco merchant, read "Wanted: Gold Dust at a high rate of interest for which approved security is offered," and touted loans "negotiated in Gold Dust for both long and short time, interest payable monthly, quarterly, or with the principal at maturity of engagement."¹⁹

Companies that shipped gold also soon found themselves in the exchange business. Adams & Co., one of the first important express companies in California, became one of the major exchange dealers prior to 1855. Likewise, in Stockton, C. M. Weber, who started the town's first express company, had built a vault and obtained a safe in 1851 for the purpose of accepting packets for storage.²⁰ Wells Fargo, initially in the express business and eventually also in the stage business, entered banking in California in July 1852, when it first issued certificates of exchange.²¹ Familiar with the uncertainties of early transportation, Wells Fargo sent three copies with different carriers between remitters and receivers in the East and West, with the first certificate received recorded as the official transaction and paid, and the others treated as void if and when they arrived. The banking services at Wells Fargo had grown so important by 1852 that an advertisement in the *San Francisco Business Directory* only mentioned the express business in tiny letters, while below it, a huge headline proclaimed "Bankers and Exchange Dealers."²² Wells Fargo's banking operations grew so fast that by 1855 the company had expanded its services to Sacramento, Stockton, and Portland, and when Wells Fargo opened its office in Los Angeles, its capital reached \$1 million.²³

A final breeding ground for early banks was the general store or merchant. Most merchants allowed reliable customers to "run a tab"—an early form of credit extension—and many already had safes to protect their own daily cash balances. It did not take long for merchants to offer space in their safes for valuables or cash, giving the depositor a receipt, which still other merchants honored or discounted against. One such merchant, Darius Ogden (D. O.) Mills in 1848 left a budding career as a bank clerk in New York to follow his brothers to California. Abandoning the rigorous life of a miner shortly after he arrived, Mills purchased a stock of goods, which he transported to Sacramento and quickly sold. The profit from this operation was so much greater than in the gold fields that Mills returned to New York, found a financial partner, and bought more goods to take back to Sacramento. After a year as a storekeeper, Mills made another trip to New York to present his business partner with \$40,000 in profits from a \$5,000 initial investment—in fact, Mills had acquired his first cache of goods with just \$40 in cash.²⁴ When Mills traveled back to Sacramento in the winter of 1849–50, he left orders for a variety of goods to be shipped after him, including a large safe, which became the key feature in the new Bank of D. O. Mills.



The Wells, Fargo & Co. office at the town of Iowa Hill, located near the North Fork of the American River in Placer County, August 1855. Prospectors found gold here as early as 1849, but it was not until five years later that miners struck rich diggings and the camp boomed. Charles T. Blake, the local agent for the famed express and banking company founded by Henry Wells and William G. Fargo, stands in the center doorway. *California Historical Society, FN-24037.*

Whether as an express agent, a gold dealer, or a merchant, the route by which one became a banker usually involved several essential steps, not necessarily in any particular order. A would-be banker had to establish himself (there were no female gold-rush bankers of record) in a business of some type, demonstrating to customers that he could be trusted to exchange currency and gold honestly and effectively, and also presenting a personal testimony that he was successful. That image has been taken for granted by historians, but for the potential customers of the day, it represented a crucial element in convincing them to deposit hard-earned gold or currency with a merchant.

Another critical step toward becoming a banker was to purchase a safe—the path followed by Mills—which established the individual as a person to whom others could entrust money with assurances of physical safety and security. Once a busi-

nessman had gained a reputation, amassed a measure of personal wealth, and acquired a safe, the final step was to construct a building. The bank building in the Old West, like the safe and the vault, has been largely overlooked. The structure was the physical symbol of safety upon which a banker's business rested. Western bankers had used a number of innovative temporary facilities and strategies to protect money, including hiring full-time guards, placing money in boxes with rattlesnakes, and hiding real gold in waste baskets while substituting gold-painted rocks in the cash drawers.²⁵ Those, of course, did not satisfy the demands for a building and an iron safe, and therefore an aspiring banker made it a matter of urgency to construct a facility that not only provided physical protection of assets but also suggested to even casual observers that it was an establishment of permanence and strength. The structure itself often contained the most ornate furnishings and finest wood and brass, rivaled in a typical western town by the saloons perhaps, but by few other buildings. The preference for ornate design, rich woods, marble, brass, and other costly materials did not reflect reckless expenditures on meaningless trappings or extravagance. Rather, the building offered physical security, because a bank was inevitably located in the middle of town, "far enough away from the saloon to discourage alcohol-induced midnight pilgrimages by the bar patrons, but close enough that the next morning those same bleary-eyed (and broke) revelers could obtain more cash."²⁶

Inside the bank building, an interior wall might be bordered by another business, with a stone or brick vault usually set into the wall or placed in the basement. Even if someone breached the vault, the thief would have to penetrate the safe. Early ball-safe designs utilized a large, hollow iron ball that held cash and valuables, and that rested on a square base, inside which were stored important papers and deeds. The ball was too large and heavy to carry off, and its round surface made it almost impossible to crack using the blasting powder available at that time. Ball safes soon gave way to the larger, rectangular combination safes produced by Hall Safe and Lock in Cincinnati, Ohio. Bankers tended to place the safe inside the vault, which had barred windows and doors. In this manner the artistically embellished iron box was both protected and displayed, presenting the customer a clear view of the bank's chief symbol of safety.

A bank building, complete with its vault and safe, represented an investment in the community of substantial proportions, costing between \$8,500 and \$250,000. The investment in a building could represent as much as 50 percent of its total capital: William Ralston's Bank of California building constituted 12.5 percent of the bank's initial capital, while at the Lucas Turner & Co. Bank, managed by William Tecumseh Sherman, the three-story 1854 building that housed the bank and other office space accounted for 27 percent of total capital.²⁷ Placing so much of a bank's precious capital in a building might seem odd to modern, cost-efficient managers until it is understood

that the building constituted the most important source of advertising. In an age when many customers were illiterate or literate but unread, the bank had to transmit the message that it was safe and secure in a clear, public display: the imposing bank building.²⁷

It was doubly important that a new bank have physical symbols of safety, because in the absence of regulation, bankers had to assure customers that they protected the customers' funds. Perhaps in the most unnoticed event of western frontier history these symbols of safety worked almost to perfection. A thorough search of the records of *all* states west of the Missouri/Minnesota border (not counting Texas which was still considered "southern") reveals the total absence of bank robberies in early years. Though they became a staple in the western movie, virtually no bank robberies—or, at least, successful ones—occurred prior to the 1920s in the West. Authors have found few incidents that even come close to qualifying: a raid on a bank in Nogales, Arizona (a border town subject to bandit incursions from Mexico); a failed attempt by the Butch Cassidy gang on a Colorado bank, in which the would-be thieves used nitroglycerin to threaten hostages; and a 1912 shoot-out in Newport Beach. Otherwise, the outstanding reality of banking in the West was that symbols of safety worked exceptionally well, not only as visual reassurances of security but as deterrents to assaults on the physical capital of the banks.

Another reason the banks had to maintain an imposing physical presence in the town stemmed from the fact that while a single individual usually stood out as the bank's "founder," in reality many early California banks, reflecting the region's highly transient population, were characterized by a high level of ownership instability with partners frequently entering and leaving the businesses. Moreover, the names of California banking companies changed as often as did the partners. Consider the banking business of Dr. Stephen A. Wright, who in 1848 established the Miner's Bank out of his exchange operations. In September of the following year, he changed the name to Wright & Company, located at Kearney and Washington in San Francisco. Less than a year later, it was reorganized as Miner's Exchange and Savings Bank. A similar business, Decker and Jewett of Marysville, had started as Cunningham and Brumagin (1850), which became Mark Brumagin & Company (1854), then Decker Brumagin & Company (1858), Decker, Jewett & Paxton (1861), and after 1863, Decker, Jewett & Company. The final name, Decker Jewett Bank, lasted until the bank's closing in 1927.²⁹

One exception to the typical career path, through which it was typically merchants, freight agents, or gold dealers who evolved into bankers, was Thomas Wells, a newspaper publisher (and no relation to Henry Wells of Wells Fargo) who moved to California from New England. In August 1849, Wells opened his Specie and Exchange Office, which consisted of a simple room, 15 by 18 feet, with a wooden plank counter. Nevertheless, by the end of that year Wells had emerged as the leading banker in the city, writing to his wife that deposits amounted to \$132,000 and



Stephen A. Wright's Miners Exchange Bank, on the northwest corner of Montgomery and Jackson streets, was built in 1854 from designs by Peter Portois, one of the most notable European architects to work in California during the nineteenth century. Wright, whose banking company underwent a series of name changes in the early years, poured \$147,000 into the construction of the building, a tasteful exposition of current French fashion, which immediately became a San Francisco landmark. Above a first floor of heavily rusticated granite blocks rise three stories of brick, plastered in simulated stonework and topped by a towering lantern. *Courtesy Bancroft Library.*

that he was opening two or three new accounts every day.³⁰ By 1850, he had taken in a partner (who added \$50,000 in capital) and started construction on a new "fire-proof building," which a year later he discovered not to be fireproof, at great cost to his own health when he stayed in the bank too long during a fire. (In the mistaken assessment that "fireproof" really meant *fireproof*, several bankers, including James King of William, tried to sit out fires inside their supposedly flame-resistant buildings; King almost died from smoke inhalation.)³¹ At any rate, Wells found that the fire at his bank had wiped out his business, for within six months his notes were protested by another company, indicating that they were not sound. Wells could not cover the bills, and placed the bank, or what was left of it, in the hands of trustees who paid off creditors at the rate of thirty-seven cents on the dollar.

Joining Thomas Wells in the banking business in San Francisco by late 1849 were at least three other banks: Naglee & Sinton (later Naglee & Company), Wright Burgoyne & Co., and B. Davidson; and a year later three more, D. J. Tallant, Page Bacon & Co., and F. Argenti & Co., entered into competition with the original group. Still other competitors were *de facto* banks that did not adopt the title "bank."

Whether these establishments were banks in name or in fact, the rapid emergence of banking businesses in California in 1849 was especially noteworthy because much of what they did was technically illegal. The delegates to the 1849 state constitutional convention (which included only one person described as a banker) had prohibited anyone from issuing paper notes or otherwise exercising banking privileges. If banking was prohibited, where did all the banks come from? How did one reconcile the presence of so much gold and so many bankers, with such clear antibanking legislation?

The California Constitutional Convention, convened in early September 1849, met concurrently with a group of private citizens who considered the "official" body illegal. In the official body's draft were several provisions related to banking, including sections 31, 33, and 36 (general incorporation and limited liability acts); section 34 (which expressly prohibited the legislature from passing a charter for a banking association, but still holding open the possibility of private "associations . . . formed under general laws for the deposit of gold and silver"); and section 35 (prohibiting the legislature from "sanctioning in any manner . . . the issuing of bank notes").³² California had, perhaps inadvertently, accepted the then-popular notion of "free banking" without some of the features that made free banking especially effective. Free banking allowed anyone to open a bank without the express approval of the government, but often required bankers to assume liability for the loss of depositors' money. Scotland's earlier period of free banking, for example, featured double liability for stockholders if deposits were lost.³³ Far from anticipating the widespread appearance of free banking, though, the constitutional convention, wanting to spare the state from what it saw as the evils of paper money, thought that the mountain of gold upon which the state rested would by itself suffice to eliminate banknotes. That did not prevent some, such as a member of the drafting committee on banking and incorporation, from arguing in his finest Jacksonian rhetoric for providing "the strongest constitutional safeguards against the vicissitudes . . . of this monstrous serpent, paper money."³⁴ One committee member, J. M. Jones, tried to eliminate the general incorporation laws and to expressly prohibit banks, including any "associations" that accepted gold and issued receipts that might circulate as money. But others quickly countered that merchants demanded a circulating medium, and that failing to permit free enterprise in the form of banks could well jeopardize the ratification of the constitution by the public. As a result, the convention gave the legislature the power to grant charters for banking, but prohibited such banks from issuing paper money—and a second, separate passage reiterated the ban on paper

money—and accepted the general incorporation laws with limited liability. Then, as if to confuse completely the convention's intentions, the first legislature established a rate of interest at no more than 10 percent per year on loans, even as it had prohibited any "evidences of debt" (outlawing I.O.U.s). In reality, the constitution and the legislature's stipulations regarding paper money and banks already had been rendered obsolete and irrelevant by the market, which daily saw hundreds of miners exchange gold for drafts—a reality to which the legislatures finally acceded when laws were passed taxing banks on the gold dust brought in or the *exchange sold*, underscoring the significance of money creation as a central element of early banking.

A threat far more dangerous to California's early banks than contradictory laws was the decline in the mines' gold production after 1852. Miners needed more expensive equipment to reach the gold, as the simple pans and picks of a few years earlier no longer sufficed. From 1854 to 1855, banks in San Francisco experienced several panics, particularly when Page, Bacon & Co. failed, triggering a disastrous run. The main office of Page & Bacon in St. Louis had heavy losses on a midwestern railroad loan, but had raised sufficient gold in California to keep the office open, shipping back to St. Louis by steamer. While the gold was en route, word reached San Francisco that the St. Louis branch of Page & Bacon had folded, and the subsequent run shut down the company, as well as other San Francisco banks, including Adams & Co. and Wright's Miner's Exchange Bank. Eventually, even most offices of Wells Fargo were closed. The *Daily Herald* reported that "No day so gloomy has been witnessed in San Francisco since that disastrous fire of the 4th of May, 1851. Every bank was said to have suspended, and rumors of mercantile failures—most of them false, we are glad to say—came thick and heavy in the afternoon."³⁵ Another panic occurred when prominent San Francisco citizen Henry Meiggs, who had supplied much of the city's lumber and built Meiggs Wharf, unexpectedly left town owing \$800,000 secured with forged city warrants.³⁶

Meiggs's sudden departure could be traced to the constant hounding he received on his debts by William Tecumseh Sherman, later the famous Civil War general. Sherman had first come to California as a lieutenant during the war with Mexico. His nearly three years' experience was deemed adequate to make him a valuable representative of Lucas Turner & Co. of St. Louis, when that company opened a bank in San Francisco in 1853. Henry Turner opened the branch early in 1853 by renting a suitable space for \$600 a month and hiring two employees. Sherman arrived to assume control in late April after a two-month trip marked by a pair of shipwrecks on the same day: "Not a good beginning for a new peaceful career," he wrote. Finding the California economy still booming and business prospects good, Sherman returned home, resigned his U.S. Army commission, collected his family, and journeyed back to California to stay, at least until 1860 as he had agreed. As a manager, Sherman proved as relentless as he would later be to the Confederates. A

reading of Dwight Clarke's edited collection of letters from Sherman shows that the future general mercilessly pressured Meiggs for payments in the period prior to the latter's hasty departure.³⁸

That weeding out of banks caused by repeated panics merely opened the door for other ambitious and talented men, including William Chapman Ralston, who had abandoned his steamboating career to become a Forty-niner.³⁹ While crossing the Isthmus of Panama, Ralston met some old steamboating friends, Captain Cornelius Kingston (C. K.) Garrison and Ralph Fretz, who wanted him to handle the Panama branch of a travel and freight business they had in San Francisco. After dealing with malarial climate, unprepared travelers, and even a major shipwreck, Ralston finally settled in San Francisco in 1854 and opened his own steamboat business, earning profits from shipping passengers and goods and amassing enough in January 1856 to open a bank called Garrison, Morgan, Fretz & Ralston. Charles Morgan and Garrison withdrew from the business in 1857. Now renamed Fretz & Ralston, the firm soon merged with dry goods merchants Eugene Kelly and Joseph Donohoe for additional capital.

During that period, Ralston invested in a variety of local industries: foundries, railroads, and dry goods firms. He also expanded to the north, allying himself with the Ladd and Tilton Bank of Portland, which brought a stern warning from Kelly. To Ralston, the reprimand constituted an opportunity to open his own bank, and he immediately rounded up some of the most prominent local citizens, including D. O. Mills. Ralston wanted his new bank to stand out as the most important in the state, and accordingly he named it "The Bank of California" (with "The" always capitalized in the title).⁴⁰ Mills became the new president, bringing to the position his reputation, while Ralston took the daily management job of cashier, deciding the investments and loans that the bank would make. When the bank opened on July 1, 1864, its charter specifically listed its business as banking, the first allowed under an 1862 revision of the state's constitution. The Bank of California thus became the first incorporated bank in California, drawing its customers and investment profits primarily from the increasingly successful Comstock silver mines.⁴¹

Silver mining offered tantalizing opportunities for wealth. The silver veins dove deep into the mountains, and became accessible only by digging expensive shafts, which required extensive capital. Silver miners might easily discover a vein of the blackened metal near the surface, but the pursuit of silver veins required deep mines with reinforced tunnels, ore cars and rails, and pumps and blowers to keep the miners alive, as well as elaborate mills and separators to process the ore. A lively market for mine stocks developed as people realized that capital invested in a mine might not pay off for years or make one rich in a day. Silver mining launched the Pacific Coast Stock Exchange. It also stimulated the production of timber to reinforce deep mines, and railroads to transport timber from the Sierra Nevada to the desert area

of Virginia City. Of course, mining constituted a volatile business, with the constant threat of cave-ins, floods, or fires.

It did not take Ralston long to appreciate the close relationship his bank had with the fortunes of the mines: when a miner's pick hit a subterranean water vein and flooded the shafts, mining stocks plummeted and Ralston's correspondent bank in Virginia City failed. That episode served to convince Ralston that he needed his bank to have its own branch in Virginia City, prompting him on the recommendation of a friend to hire William Sharon. When Sharon arrived in Virginia City, he dove into the thorny problem of the long-term profitability of the Comstock Lode, visiting chilly caverns and hot, sulfurous shafts. Floods proved the most frequent, and vexing, problem. Yet all that was required was some way to pump out water. After a particularly disastrous flood swamped one mine, stopping production, Ralston, with typical energy and optimism, installed a 50-horsepower pump—the biggest yet created. But the pump proved so ineffective against the rising lake inside the mines that within eight months the water engulfed the outmatched machine. It was typical, however, of Ralston to order the Vulcan Foundry, which he helped support with his investments, to construct a 120-horsepower pump.

While Ralston struggled with the water problem in the mines, he grew concerned that his bank had made far too many—and too generous—loans. In the process, though, the bank had helped to start woolen mills, a sugar refinery, an insurance company, a railroad equipment manufacturing company, a winery, lumber mills, gas and water companies, and the Sacramento Valley Railroad, as well as invested in other existing projects, such as the Vulcan Foundry. In these early days, banks not only loaned to businesses but also owned substantial portions of a number of enterprises. Of course, with each new investment, Ralston either became an official or *de facto* member of the board, or the manager of the business. Ultimately, so many businesses owed at least some part of their existence to Ralston's Bank of California that Ralston biographer George Lyman called him the "Atlas of the Pacific," for upon his shoulders "rested the financial structure of the Pacific Coast."⁴²

By establishing a branch for his bank in Virginia City, Ralston had presented California with a gift for posterity. Branch banking existed in many parts of the world, including the antebellum American South.⁴³ Other California bankers had established small branches, but the practice was certainly not universal, nor were the benefits and efficiencies of branching well publicized outside the South. But Ralston realized that San Francisco's economy differed somewhat from Virginia City's, and that the more flexibility his bank had to shift resources back and forth, the more likely it could withstand crises, which were sure to come given the vicissitudes of mining. In Ralston's first big gamble with mining investments, it looked as though even the more resilient branch structure might not save him: he received constant pleas from Sharon for more cash, to the tune of more than \$650,000, to keep the

Comstock drills going. Silver existed in abundance, Sharon reassured Ralston, and "Atlas" went beyond what traditional bankers would have seen as their obligations in financing all of the mining ventures. Ralston's gamble paid off in 1865, when the Kentuck mine produced silver. Within a year it yielded \$2 million of the metal, making the Bank of California flush with more than \$1 million in profits.

Ralston plowed much of the profit back into the bank, building the most elaborate financial headquarters west of the Mississippi, with tall arched windows and nineteen-foot-high ceilings capped by ornamental vases. The bank's interior sported polished dark wood counters, and though it lacked the traditional tellers' cages, the bank advertised its four massive vaults, each formed of a three-inch-thick wall of stone. Enclosed in green glass were inner offices where Ralston and the cashier worked. Contrary to the layout of most banking houses of the day, there was no "ladies banking room." The bolder sort of women who lived in California deposited their funds with the same dark-suited tellers who served the men. To attract Chinese customers, Ralston employed Chinese tellers, whom he exempted from his dress codes by allowing them to wear dark silk robes and their customary long braids.

Beyond the bank, Ralston's influence ran deep. He built the huge, unrivaled Palace Hotel, and, to internalize the costs of construction, he purchased foundries, furniture businesses, and other supporting enterprises. He lent money to the Japanese government to buy railroad engines from California manufacturers. In 1874, he created a new silver coin, called the "trade dollar," to encourage Asian suppliers to hold money earned in trade.

By August 1875, however, Ralston's overextended empire caught up with him. That year, a nationwide financial panic reached California, sparking runs that closed the Bank of California. The day the bank closed, Ralston, perhaps facing the impending bankruptcy of his personal estate, went for his regular swim in San Francisco Bay. He was observed in a brief struggle but died before he could be brought ashore. The "Atlas of the Pacific" had put down the globe for good, but the bank managed to reopen in October of the same year.

Prior to his demise, however, Ralston also demonstrated another characteristic of early California banking, that of domestic capital investment that eventually became capital export. Far from the claims of some contemporaries and historians that eastern interests used the West as a "colony," the California banking experience suggests just the opposite—California's banks, built by men with little imported capital, prospered to the extent that they reinvested their fortunes in the state's economy. The "Irish Four" of John Mackay, James Fair, James Flood, and William O'Brien, who opened the Bank of Nevada in San Francisco in the early 1870s, had started as saloon owners and miners. Although they all became rich from investments in the Comstock Lode, Flood could not hang onto his money, going broke first in the 1850s and having to work as a carpenter to pay his debts. Flood rebuilt his empire, but again



Designed by the Scots Argonaut David Farquharson, the Bank of California was constructed in 1866 and 1867 of granite quarried on Goat Island in San Francisco Bay and proved more solid than the fortunes of its founder, William C. Ralston. For his design of the most powerful banking house in the American West, the architect drew freely on Jacobo Sansovino's Library of St. Mark, creating an elegant Renaissance Revival temple of finance. The interior, equally as distinguished as the façade, was richly finished in black marble and Spanish mahogany. *Courtesy Society of California Pioneers.*

lost it all in a wheat speculation with Mackay that cost the partners as much as \$12 million. But the mere fact that a pair of California ex-saloon owners could become major investors in the wheat market provides some evidence as to their wealth.

The diminished fortunes of Mackay and Flood after the 1870s paved the way for the arrival in San Francisco of another early California financial legend, Isaias Hellman, who had come to Los Angeles in 1859 from Bavaria.⁴¹ The dry goods store he started featured a Tilden & McFarland safe, allowing him to diversify into banking activities as early as 1865. His was not the first incorporated bank in Los Angeles, an

honor that belonged to James A. Hayward and John G. Downey, who started their bank in 1868. But Hellman quickly developed a reputation as one of the most solid businessmen in the region, and in 1871 he merged his bank with Downey's, bringing in twenty-three other local business and agricultural leaders to form the Farmers & Merchants Bank of Los Angeles. In 1876, Hellman replaced Downey as president after a panic nearly closed the institution. The Farmers & Merchants Bank prospered, and Hellman's business interests extended throughout the state. When in 1891 directors were looking for a new president to take over San Francisco's Nevada National Bank, which the Mackay-Flood losses had weakened, Hellman left Los Angeles to accept the position. He led the bank's return to prominence and its merger with Wells Fargo Bank and Union Trust Company. Like his contemporaries, Hellman invested heavily in California, organizing railroads and becoming a local philanthropist.

In many ways, the ascension of Hellman and the passing of Ralston and the Irish Four marked the end of the frontier period in California's banking history, essentially closing the frenzy begun with the Gold Rush. The early merchant-banker, who relied on safes, vaults, personal reputation, and customer loyalty to maintain business, gave way to a new, professional class of managers. In addition, the regulation of banks—while still largely in the hands of the bankers themselves—came to be viewed as a public policy issue, at least to some degree.

The 1860s and 1870s brought depression and disruption to the California economy. Completion of the transcontinental railroad in 1869 had caused unemployed railroad workers to descend on the cities. Speculation increased land prices dramatically, and droughts in southern California thinned the cattle herds. Ranchers who had borrowed against their land to expand when gold and silver had made the state prosperous found themselves overextended and often lost their land to lenders.⁴⁵ Sympathy for the economically distressed, combined with the traditional antibanking sentiment, led legislators to further regulate banks. The resulting state Banking Act of 1878 created a Board of Bank Commissioners and required all banks to pay a license fee, to file reports, and to submit to examinations twice a year. Only Indiana, Iowa, and four New England states preceded California in requiring examinations.⁴⁶

Civil War measures by the Union government had also centralized and nationalized control over American banking far more than ever before. After 1864, notes issued by private, state-chartered banks were taxed nearly out of existence. Money from the newly created national banks circulated, replacing private and state bank notes. While still only connected in the loosest of associations through the federal government and supervised liberally by the Comptroller of the Currency, the national banks nevertheless indicated a new attitude toward bank regulation. With the new national charters, however, came increased examination and supervision by the federal government. A national banker could not merely publish the balance sheets

or income statements, but rather had to submit to routine inspections, after which the government examiner would declare the bank "safe and sound" (assuming, of course, that it passed). When California began examining the state-chartered banks in 1878, of the first five banks examined, examiners closed the first and passed the second. The next three closed before the inspectors arrived.⁴⁷

The growing but gradual changes in the supervision of banks by state and federal agencies often are viewed by historians as reforms resulting from public outcry. In reality, increased regulation often *shifted* the public's perceptions of a bank's stability from visual and material symbols, such as the building or the banker's personal wealth, to more "professional" and "expert" endorsements that perhaps in the long run were of far less value. Involvement by the federal government, through the national banking system, also began the relentless transfer of local control over financial institutions to the central government.

Control demanded that as many banks as possible be brought into the national bank system, and federal authorities assumed that the privilege of issuing national banknotes—and the corollary taxing of private or state banknotes—would do the trick. California banks, however, had developed a much different commercial emphasis than had many state banks in other regions, where the issuing of notes constituted a major element of the institution's business. In California, with its abundance of gold, the banks had concentrated on loans and investments, not note-issue, and therefore when the national banking system was established, its most valuable prize for a bank joining the system—the authority to issue tax-free and easily recognized national banknotes—enticed very few California banks to join.

Californians demanded coin in almost all daily transactions, and few trusted the Union government's supplemental Civil War paper currency, known as "greenbacks" (which, unlike national banknotes, were issued directly by the government). When the California Supreme Court upheld a law allowing contracts to specify the type of money acceptable in payment, it essentially defied the U.S. government's contention that greenbacks were "legal tender."⁴⁸ Most lenders demanded gold in payment, leaving the U.S. customs collectors as almost the only people in the state willing to accept greenbacks. Congress realized that as long as gold circulated as freely as it did, the national banking system could not make any inroads in California. Accordingly, in 1870, Congress amended the National Bank Act to provide for the creation of national gold banks, with new notes payable in gold coin. Congress required that the banks hold a 25-percent reserve in specie—substantially higher than most antebellum private banks would have held—and limited the total amount of outstanding gold notes to \$45 million.⁴⁹ Ten gold banks were organized in California, and when all national banknotes became redeemable in specie in 1879, all ten switched to standard national charters.⁵⁰

Even though the "gold" period in California's banking history did not end until

the demise of the gold banks, the gold-rush era had closed with the end of the Civil War, if not sooner. California banks passed from the frontier stage, characterized by individual responsibility for bank solvency and safety, to the managerial stage, in which trained professionals directed the activities of the banks under the oversight of state, then later state and federal, authorities. Yet the conditions that had given birth to Ralston, Hellman, the Irish Four, and D. O. Mills still shaped the state's financial institutions. Branch banking was tailor-made for a state as large as California, with its diverse economy.

By the end of the frontier era in California's banking history, several enduring features had been established. First, despite Americans' traditional suspicions of banks, the mere presence of banks from the earliest times led Californians to a certain comfort level with the institutions. Despite concerns by legislators, and in the twentieth century attacks by radical groups or "public interest" spokesmen, most Californians accepted banking as a necessary and useful part of daily economic life. Except for the early constitutional debates, banks generally escaped the harsh criticism or outright ostracism frequented on institutions in Wisconsin, Arkansas, Mississippi, or Iowa, where at various times the practice of banking or the establishment of a bank was prohibited by law or all but eliminated. That acceptance, in turn, meant that Californians—from farmers to millers to shippers to innkeepers—did not hesitate to seek new capital to expand agriculture, commerce, trade, and industry.

Second, the symbols of safety worked as planned, suggesting that consumers were more capable of judging the vitality of their financial institutions than many advocates of regulation have thought. Certainly, many of the early banks eventually failed. But that neither dissuaded consumers from using banks, nor other entrepreneurs from starting new ones. Moreover, of those banks that failed, few collapsed because of the actions of a villain who profited at public expense. In almost all cases, the founder or owner sacrificed everything to keep the institution alive and to meet obligations, even to the point that individual fortunes were exhausted for the sake of the bank.

That point underscores a third characteristic of early California banking, which was the persistent use of coin as currency. While popular for a time, the use of gold dust in daily transactions proved neither practical nor desirable, and coin, and soon paper money, quickly found their way into circulation. Paper money, however, had to be redeemable in gold. Californians hesitated to accept greenbacks, not because they were paper money, but because they were *unbacked* paper money from the government. Evidence from other sections of the country suggests that the "free bank" era of private note-issue was a success, and a substantially revised interpretation of that period, which has been emerging for over a decade, now appears to be the accepted position among economic historians. Far from demonstrating that paper money, and privately created paper money at that, would not work, experience in California showed that consumers will select a variety of exchange mechanisms as

these suit their needs, and that the *least* desirable of all money was that issued by the government as "legal tender."

Finally, California's adoption of branch banking, while not prevalent in the early frontier era, proved a critical step in the long-term economic vitality of the state. It was the perfect system for a large, economically diverse state (while, in contrast, branching proved less effective in states with more homogenous economies, such as Nevada or South Carolina in the 1920s).⁵¹ The state, sometimes through deliberate action, occasionally by accident, developed a thriving, diverse, flexible banking structure that by the 1980s saw the temporary ascension of a California bank, Bank of America, as the largest bank in the world. That bank was then only one of many large competitors in the state, suggesting that the attitudes and structures generated by, and during, the Gold Rush proved exceptionally durable and flexible over the subsequent century and a half.

NOTES

1. The most recent and thorough survey of these debates appears in Larry Schweikart, "U.S. Commercial Banking: A Historiographical Survey," *Business History Review* 65 (Autumn 1991): 606-61, as well as his introduction to *The Encyclopedia of American Business History and Biography: Banking and Finance to 1913* (New York: Facts on File and Bruccoli Clark Layman, 1991). Also see Benjamin J. Klebaner, *American Commercial Banking: A History* (Boston: Twayne, 1990), and Larry Schweikart, *Banking in the American South from the Age of Jackson to Reconstruction* (Baton Rouge: Louisiana State University Press, 1987).

2. See Timothy Hubbard and Lewis Davids, *Banking in Midamerica* (Washington, D.C.: Public Affairs Press, 1969), and R. S. Cole, "Early History of Money and Banking in Missouri" (M.A. thesis, University of Missouri, 1906).

3. For example, the experience of the antebellum North Carolina banks, in Schweikart, *Banking in the American South*, *passim*.

4. Earling A. Erickson, "Money and Banking in a 'Bankless' State: Iowa, 1846-1857," *Business History Review* 43 (Summer 1969): 171-91; Larry Schweikart, "Arkansas Antebellum Banks," *Southern Studies*, 26 (Fall 1987): 188-201; Joseph M. Grant and Lawrence L. Crum, *The Development of State Chartered Banking in Texas* (Austin: University of Texas, Bureau of Business Research, 1978).

5. Robert Glass Cleland, *From Wilderness to Empire: A History of California, 1542-1900* (New York: Knopf, 1944), 240.

6. Lynne Pierson Doti and Larry Schweikart, *California Bankers, 1848-1993* (New York: Guinn, 1994), 9.

7. Richard Henry Dana, *Two Years Before the Mast* (New York: A. L. Burt, 1840), *passim*.

8. Lewis E. Davids, "'Fur' Money and Banking in the West," *Journal of the West* (April 1984): 7-10.

9. Dana, *Two Years Before the Mast*, 9.

10. Ira R. Cross, *Financing an Empire: History of Banking in California*, 4 vols. (Chicago: S. J. Clarke, 1927), vol. 1, 22.

11. William Heath Davis, *Seventy-five Years in California*, ed. Harold A. Small, 3rd ed. (San Francisco: John Howell Books, 1967).
12. Lynne Pierson Doti and Larry Schweikart, *Banking in the American West: From the Gold Rush to Deregulation* (Norman: University of Oklahoma Press, 1991), 10.
13. Thomas Senior Berry, *Early California: Gold, Prices, Trade* (Virginia: The Bostwick Press, 1984), 78.
14. Robert J. Chandler, "Integrity Amid Tumult: Wells, Fargo & Co.'s Gold Rush Banking," *California History* 70 (Fall 1991): 261. For the growth of San Francisco, in general, see Roger W. Lotchin, *San Francisco, 1846-1856: From Hamlet to City* (1973; reprint, Lincoln: University of Nebraska Press, 1979), as well as J. S. Holliday, *The World Rushed In: The California Gold Rush Experience* (New York: Simon & Schuster, 1981), 316-17.
15. See Cross, *Financing an Empire*, vol. 1, 125-27.
16. The Smithsonian Museum of American History displays the Polk Collection of California's privately minted coins from many of those businesses.
17. Cross, *Financing an Empire*, 44.
18. See Fred R. Marckhoff, "The Development of Currency and Banking in California," *The Coin Collectors' Journal* 15 (May-June 1948), and Benjamin Cooper Wright, *Banking in California, 1849-1910* (San Francisco: H. S. Crocker, 1910), 15.
19. Cross, *Financing an Empire*, vol. 1, 41.
20. *Ibid.*, 90.
21. Wells Fargo History Department, "Historical Highlights," pamphlet published by Wells Fargo Bank, 1982, 5.
22. *Ibid.*
23. W. Turrentine Jackson, "Wells Fargo: Symbol of the Wild West?" *Western Historical Quarterly* 3 (April 1972): 179-96. Also see his many articles on Wells Fargo, including "A New Look at Wells Fargo, Stagecoaches, and the Pony Express," *California Historical Society Quarterly* 45 (1966): 291-324; "Stages, Mails and Express in Southern California: The Role of Wells, Fargo & Co. in the Pre-Railroad Era," *California Historical Society Quarterly* 56 (1974): 233-72; "Wells Fargo Staging Over the Sierras," *California Historical Society Quarterly* 44 (1970): 99-133; and "Wells Fargo's Pony Expresses," *Journal of the West* 11 (1972): 412-17.
24. Lynne Pierson Doti, "D. O. Mills," in Schweikart, *Encyclopedia of American Business History*, 316-20.
25. These and other unorthodox methods of protecting money and valuables are discussed in Pierson Doti and Schweikart, *Banking in the American West*, 1-37, and Larry Schweikart, *A History of Banking in Arizona* (Tucson: University of Arizona Press, 1982), chaps. 1-2, *passim*.
26. Pierson Doti and Schweikart, *Banking in the American West*, 39.
27. Neill Compton Wilson, *400 California Street: The Story of the Bank of California, National Association, and Its First 100 Years in the Financial Development of the Pacific Coast* (San Francisco: Bank of California, 1964), 26, 29; Dwight L. Clarke, *William Tecumseh Sherman: Gold Rush Banker* (San Francisco: California Historical Society, 1969), 18. Sherman's building, unlike his business, survives today.
28. A good discussion of bank architecture appears in Christopher Nelson, "Bank Architecture in the West," *Journal of the West* 23 (April 1984): 77-87. See also "Bank Architecture in New York," *Bankers Magazine*, February 1855, for an appreciation of how well in tune with recent developments on the subject California bankers were, and Philip Sawyer, "The

Planning of Bank Buildings," *The Architectural Record* 12 (1905): 24–31, for the rationale behind the floor layout of the banks.

29. These changes are detailed in Cross, *Financing an Empire*, vol. 1, 86–89.

30. *Ibid.*, 52.

31. *Ibid.*, 58–61. Also see Pierson Doti and Schweikart, *Banking in the American West*, 39.

32. J. Ross Browne, "Report on the Debates of the Convention of California on the Formation of the Constitution in September and October, 1849" (Washington, D.C., 1850), 108–36. Also see David Alan Johnson, *Founding the Far West: California, Oregon and Nevada, 1840–1890* (Berkeley: University of California Press, 1992), 122–25.

33. By that time, the evidence on free banking in Scotland was abundant, but the experiments in the United States were still ongoing. See Lawrence H. White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (New York: Cambridge University Press, 1984); "Scottish Banking and the Legal Restrictions Theory: A Closer Look," *Journal of Money, Credit and Banking* 22 (November 1990): 526–36, and, with George Selgin, "The Evolution of a Free Banking System," *Economic Inquiry* 25 (July 1987): 439–58; as well as Donald R. Wells and L. S. Scruggs, "Historical Insights into the Deregulation of Banking," *CATO Journal* 5 (Winter 1986): 899–910. Several states had used general incorporation laws to establish "free banks" that had limited liability but that relied on bond deposit with the secretary of state to ensure that noteholders were reimbursed if an unscrupulous owner left town with the bank's capital. Several articles by Arthur J. Rolnick and Warren Weber show that the culprit in most free bank failures was faulty drafting of the laws that did not specify market value of bonds, only *par* value, making it possible for an unscrupulous owner to take advantage of plunges in the prices of bonds the bank had on reserve with the secretary of state. See their "Banking Instability and Regulation in the U.S. Free Banking Era," *Federal Reserve Bank of Minneapolis Quarterly Review* (Summer 1985): 2–9; "Free Banking, Wildcat Banking, and Shiplasters," *Federal Reserve Bank of Minneapolis Quarterly Review* (Fall 1982): 10–19; "New Evidence on the Free Banking Era," *American Economic Review* (Fall 1981): 1–17; "Inherent Instability in Banking: the Free Bank Experience," *CATO Journal* 5 (December 1983): 1080–91; "The Causes of Free Bank Failures," *Journal of Monetary Economics* 14 (November 1984): 267–91; and "Explaining the Demand for Free Bank Notes," *Journal of Monetary Economics* 21 (January 1988): 47–71. Others have challenged elements of their hypothesis, but the structure still remains intact. See Kenneth Ng, "Free Banking Laws and Barriers to Entry in Banking, 1838–1860," *Journal of Economic History* 48 (December 1988): 877–89; Hugh Rockoff, "Lessons from the American Experience with Free Banking," Cambridge, Mass.: National Bureau of Economic Research Working Paper No. 9, Series on Historical Factors in Long Run Growth, 1989; Andrew Economopolous, "Free Bank Failures in New York and Wisconsin: A Portfolio Analysis," *Explorations in Economic History* 27 (October 1990): 421–41; "The Free Banking Period: A Period of Deregulation?" *New York Economic Review* 17 (1987): 24–31; "Illinois Free Banking Experience," *Journal of Money, Credit and Banking* 20 (May 1988): 249–64, and his "The Impact of Reserve Requirements on Free Bank Failures," *Atlantic Economic Journal* 14 (December 1986): 76–84.

34. Quoted in Cross, *Financing an Empire*, 101.

35. *Ibid.*, 183.

36. *Ibid.*, 177.

37. Clarke, *William Tecumseh Sherman*, 17.

38. *Ibid.*, 69–70.

39. Cecil G. Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935); David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, Calif.: American West Publishing Co., 1975); and Lynne Pierson Doti, "William Chapman Ralston," in Schweikart, *Encyclopedia of American Business History*, 398-408.

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45. Walton Bean, *California: An Interpretive History* (New York: McGraw Hill, 1968), 205.

46. Lynne Pierson Doti, *Banking in an Unregulated Environment: California, 1878-1905* (New York: Garland, 1995), 35.

47. Ibid.

48. See Lavender, *Nothing Seemed Impossible*, 170.

49. Wright, *Banking in California*, 51.

50. For a social-choice interpretation of the gold banks, see Robert L. Greenfield and Hugh Rockoff, "Yellowbacks Out West and Greenbacks Back East: Social-Choice Dimensions of Monetary Reform," *Southern Economic Journal* 62 (April 1996): 902-15.

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"Property of Every Kind"

Ranching and Farming during the Gold-Rush Era

Lawrence James Jelinek

The Gold Rush brought about profound changes in California agriculture. Prior to 1848 California had been defined by its almost self-sufficient missions, complete with herds, gardens, and orchards nourished by the introduction of irrigation. With the emergence of the Californio ranchos after the 1820s, the hide and tallow trade had fueled the economy, and modest progress had been made in the pueblos, especially Los Angeles, by the expansion of its irrigation system. Following the Mexican-American War, between 1846 and 1848, some growth occurred in farming by Americans and immigrant settlers, particularly in the valleys of northern and central California. With the discovery of gold, new settlers and higher cattle prices gave the rancheros short-term prosperity, but they also contributed to the demise of the open-range cattle grazing era. Once the gold fever had begun to wear off, many newcomers abandoned mining and took up agriculture. By 1872, cattle ranching had changed from primarily open-range grazing to breeding and fattening ranches. Wheat had become a major export crop with major profits. Finally, fruit cultivation had grown in importance throughout the state.¹

Changes in California's population and demographics reflected the tide of the Gold Rush and dramatically stimulated agricultural markets and production systems. At the beginning of 1849 the state's population, excluding Native Americans, was estimated to be only 26,000, but by the end of that year, the population had risen to approximately 115,000. Males seeking gold were in large measure responsible for California's growth to 225,000 people by 1852. As the gold seekers turned into settlers and established families, the population continued to burgeon to 380,000 in 1860 and 560,000 by 1870.

Rancheros found a new market for their cattle, as beef became a highly sought commodity to feed the growing population of the mining communities. The hide



A California cattle roundup, as portrayed by the British-born historical painter James Walker, who came west in 1875 and executed several paintings, including this one, from drawings made while visiting Rancho Santa Margarita. By the time of Walker's arrival, the great days of the open range and the long drives north had passed, and cattle raising was largely confined to breeding and fattening ranches. *California Historical Society*.

trade declined as beef cattle prices in the mining districts rose from four dollars a head before the Gold Rush to five hundred dollars a head at its high point in 1849. Herds of seven hundred to a thousand animals were driven by vaqueros from southern California up through the San Joaquin Valley or along coastal trails to grazing ranges outside Sacramento, Stockton, and San Francisco. There the herds were sold to buyers for processing.²

Mine and town demands soon outstripped the ability of rancheros to supply them with enough good beef. They also found competition from cattlemen in Texas, the Middle West, and Mexico, who began driving herds overland to the Sacramento Valley. By 1855, up to forty thousand head of cattle were driven to California annually. About this time sheep drives were also begun. California's herds included only 17,500 sheep in 1850. New Mexico, Chihuahua, and the Middle West sent herds numbering 135,000 head in 1850 and 200,000 head in 1856, the peak years for such drives.³

The rancheros enjoyed substantial profits from the livestock boom, but failed to forestall the bust that was to follow. Instead of restocking their herds by introducing the meatier American stock, rancheros assumed little had changed in the switch from hides to beef. They spent their profits lavishly and went into debt, often at a

rate of 5 percent a month, compounded, making them vulnerable to the changes that followed.⁴

In 1856, a severe drought caused heavy losses of California cattle. Many *rancheros* had already incurred serious debt because of competition with the better breeds of American cattle and sheep, which lowered the price of California-raised cattle. These problems were exacerbated by property taxes levied by a legislature controlled by northerners, especially miners, who held more personal property than real property, and who insisted that the property tax pay for state expenditures. As a result, *rancheros* began to lose their herds, their lands, and their homes, ending the "golden age of the cattle business."

The Treaty of Guadalupe Hidalgo (1848) accorded Californios American citizenship and obligated the U.S. government to confirm their valid claims to "property of every kind." Miners, however, who decided to switch from mining to agriculture, demanded that the federal government allow them their American birthright to claim homesteads. Land, which had been cheap when the treaty was signed, was suddenly made valuable by the Gold Rush. Congress did nothing to resolve the issue, failing to pass land legislation as it had previously done for Oregon and Washington, which would have enabled settlers to claim free homesteads of from 320 to 640 acres on public land in return for occupying the new territory. Newcomers refused to accept the idea that the government would allow several hundred "defeated Mexicans" to control millions of acres of the choicest land in the state. Hordes of defiant squatters invaded and laid claim to northern rancho lands. Finally, under pressure from these conflicting claims, Congress passed the Land Act of 1851 to determine the validity of all rancho grants.⁵

According to the provisions of the act, each claimant was allowed two years to appear before a three-member land commission to prove title. The commission's judgments could be appealed to the federal district court and then to the U.S. Supreme Court. Once a grant was confirmed, it had to be surveyed and issued a patent by the federal government. In the process of securing a claim, *rancheros* faced several obstacles. They might lose their claims outright. If their claims were confirmed, the boundaries could be changed, reduced, or increased at the hands of the surveyors. The surveyors were susceptible to squatter intimidations as well as to *ranchero* bribes. By 1856, when the commission ceased to function, judgment had been made on 813 claims. After the various appeals processes, some of which dragged on for decades, 604 grants were ultimately confirmed and 209 were rejected.

California chroniclers overwhelmingly agree that the Land Act was pro-settler in design and led to immoral and illegal confiscation of the property of Californios. Discrimination was extensive and fundamental. The burden of proof rested on *rancheros* instead of on the government. Hearings were conducted in English, and no commissioner was able to read documents written in Spanish. American stan-

dards for granting ownership took precedence over the Mexican system, which tended to have fewer archival records and less precise descriptions. Because of cumbersome litigation procedures, which required administrative and judicial hearings in San Francisco and Washington, D.C., to confirm and patent each title, most titles were not cleared for fifteen years. Some commissioners were fair-minded despite the biased framework, but lawyers on both sides of the issue were not. Unnecessary harassment resulted when government lawyers refused to let individual cases serve as precedents. On the other hand, *ranchero* lawyers demanded large fees that often had to be paid in land or cattle. After extensive litigation, *rancheros* often found that, although they had won their claims, they had to relinquish much of the land as payment to their lawyers.⁶

On the other hand, distinguished historian of land law Paul W. Gates took the view that the squatters were right, and that the federal government would have been wrong to uphold an essentially unproductive feudal order in American California. Gates claimed that the land commission prolonged the ownership turmoil by showing "too much regard for the inchoate rights of land claimants." Gates pointed out that of the 813 grants, 494 had been made in the 1840s. Many of the grantees failed to meet the occupancy and improvement requirements of the American takeover. In anticipation of higher land values upon completion of the American takeover, many of the 68 grants supposedly made in 1845 and the 87 grants made in 1846 had been fraudulently dated. Even so, a majority of claimants who could provide reasonable proof, even if it was deficient, that they possessed a grant and occupied it, had their claims confirmed. Gates also argued that government lawyers did accept early cases as precedent, and that given the value of *ranchero* holdings, the *ranchero* lawyers' fees were not excessive. Gates blamed the loss of *ranchero* land, cattle, and money on drought, extensive inheritance litigation, high living, taxes, and an inability to become competitive by American standards. He also maintained that from one-quarter to one-third of the transfers of grants from Mexican to non-Mexican owners was due to economic vulnerability, not to the Land Act. Gates did acknowledge that the Land Act failed to provide confirmation losers with a homestead tract out of their rejected claims. He also blamed Congress for being unconcerned about establishing public land boundaries promptly and clearly. This foot-dragging caused squatters and *rancheros* to resort to violence and deceit against each other.⁷

Historians on both sides agree with Gates concerning the dereliction of Congress. It took Congress three years to pass legislation pertaining to rancho grants and five years to establish a public land survey. By refusing to offer settlers free homesteads promptly, Congress plunged California into some of the most violent land disputes in American history. Clouded rancho land titles hindered economic development in rural and urban California for decades.

The weather delivered the final blow to *rancheros*, who were already suffering from falling cattle prices, taxes, and litigation. Extensive rainfall in the winter of 1861-62 created a runoff lake approximately 250 to 300 miles long and 20 to 60 miles wide in the Central Valley. Nearly 200,000 head of cattle drowned statewide. This was followed in 1862 to 1864 by the "great drought." Hundreds of thousands of cattle died from dehydration, starvation, and suffocation due to dust inhalation. In one decade, 1860 to 1870, California cattle ranges were reduced from three million head to only 630,000. Unable to sell their cattle for profit, *rancheros* sold their lands, often at ten cents an acre. By the 1870s, many *rancheros* had become day laborers in the towns.

Wealthy Americans or immigrants took over most of the ranchos.⁸ Concentrated land ownership intensified dramatically in American California as speculators and individuals hopeful of becoming large ranchers and farmers bought most of the public lands that came up for sale in the 1850s and 1860s.

Federal legislation passed in 1851 and 1852 allowed California to finance public needs through the sale of 8,702,140 acres of land given to the state by the federal government. To finance public schools, 5,534,293 acres were to be sold; more than two million acres of swampland were designated for sale and reclamation; 500,000 for internal improvements; 46,080 acres for a university; and 6,400 acres for public buildings. The Morrill Act of 1862 set aside an additional 150,000 acres to finance an agricultural college.

California began disposing of its lands before establishing a state agency to administer the selling, surveying, and patenting of them. The agency that was created in 1858 followed no regular practice of informing the federal government of which lands the state had selected for its public domain or when settlers had laid claim to specific parcels within it. The Preemption Act of 1841 and the Homestead Act of 1862 allowed settlers to claim land within the federal public domain, but claimants were often unsure if the land they had selected was state or federal land, land in dispute, or confirmed *ranchito* land. Collusion between officials in the land offices and speculators and would-be landowners was common. Settlers who had waited a long time for their claims to be certified might find that after making improvements, they had to buy the land from a speculator at an inflated price or abandon it when a "paper owner" refused to sell.

During the 1860s, an estimated eight million acres of public land passed into private ownership, according to Paul W. Gates. Much of this land was limited by legislation to grants of 160 acres. Fifty thousand farms of 160 acres should have been created during the decade, had the land laws been enforced. However, only 7,008 new farms were established, 2,848 of which should have come under the Homestead Act. An undetermined number of the remaining farms were the result of northern *ranchito* land sales.⁹ This type of misappropriation was experienced in all other states



The family of Vicente Lugo poses about 1892 with several hired hands at the country *casa* Lugo had built nearly half a century earlier on Rancho San Antonio, granted in 1810 to his father, Antonio María Lugo. Like other *rancheros*, Don Vicente saw his once-vast estates diminished in the 1850s and 1860s through high taxation, expensive litigation, and deadly drought. As a youth Lugo possessed two leagues of land and ran thousands of head of cattle over his domain, but by 1870 he was reduced to several hundred acres surrounding his adobe in present-day Bell Gardens, near Los Angeles. *California Historical Society/Title Insurance and Trust Photo Collection, University of Southern California.*

disposing of public land; however, in most of these states large concentrations were eventually broken up. California was unique in the scale of its misappropriation and in the determination of prominent Californians to maintain the greatest concentration of land ownership in the United States. It became so difficult to purchase land at reasonable prices in some regions that some prospective landowners were forced to accept work in the cities and towns, move to the Northwest, or return to their eastern homes. Settlers who could afford to buy land sometimes bore the heaviest burden of taxation because speculators tended not to improve their lands, and thus often paid relatively lower tax assessments.

The most distinctive member of the new land elite was William S. Chapman. Seeing agricultural potential in the vast tracts of the San Joaquin Valley, Chapman quickly became California's largest landowner after arriving from Minnesota in the early 1860s. He bought public land on his own and also in conjunction with a group

of fellow San Francisco businessmen known as the "German Syndicate." By 1871, Chapman owned more than a million acres in the valley that earlier arrivals had scorned as wasteland. Chapman contributed to California's economic growth in many ways. He assisted the valley's farmers in producing large yields of high-quality wheat by experimenting with cultivation techniques. He was instrumental in modernizing the state's cattle industry through the introduction of alfalfa. More importantly, at great personal expense, Chapman, together with other prominent landowners, brought irrigation to large tracts of the valley. They established the Fresno Canal and Irrigation and the San Joaquin and Kings River Canal and Irrigation companies.¹⁰ New crops and new cultivation methods were greatly facilitated by Chapman's willingness to experiment, combined with the availability of irrigation.

Unlike some of his peers, Chapman showed concern over the extensive concentration in land ownership. He sold parcels of land to settlers at substantial but not exorbitant prices, hoping that by helping them get started, their land improvements would increase the value of his remaining holdings. Along these lines he also encouraged colonies to create more concentrated and efficient settlement. A colony of German settlers bought 80,000 acres in Fresno County from Chapman at an average price of \$1.80 per acre, only 55 cents an acre more than the federal government was asking for neighboring land. Chapman also donated land, funds, and cultivation information to the membership of the Central Colony of Fresno County in 1875.

Chapman and other large landholders did not escape criticism. The San Francisco *Evening Bulletin* published a series of articles in 1868 blaming speculators like Chapman for preventing settlers from buying good land at reasonable prices and, as a result, slowing California's development. Chapman wrote a letter to the *Bulletin* defending the speculator's role in California:

Men who bought of me at \$2.50 per acre, payable in one year (with privileges of another year's time, if the crop should fail) have this year harvested a crop which will very nearly ten times over pay back their purchase money. . . . Scores of thousands of bushels of wheat have been raised in that region (the San Joaquin Valley) this year, and hundreds of thousands will be during the coming season, over and above what would have been carried through the Golden Gate, had no "speculator" seen the capacity of that region for wheat raising, and by circulation of documents, and by all other available means directed the attention of farmers to the land in question.

I think you err in charging those who have entered a few hundred thousand acres of Government land (for nine years going begging for a purchaser) with ruining the agricultural prospects of the State by holding lands at an enormous rate, and thus repelling immigration.¹¹

Chapman did exercise considerable influence on employees in the federal and state land offices. His use of dummy entrymen to file claims for 160-acre home-



A phalanx of steam-powered harvesters moves across a vast landscape in an image symbolic of both the immense size of California farms and the astounding richness of the Golden State's soil. Wheat farming, the first great agricultural industry in California, was highly mechanized from the outset. Steam plows were introduced as early as 1871, and before the end of the following decade, huge machines could turn a quarter section of land in a day. *Courtesy California State Library.*

steads, which they turned over to him for a prearranged fee, would make it easy to conclude that Chapman built his empire at the ultimate expense of settlers and the state. One should keep in mind, however, that this land had been available, but had remained unclaimed, for a decade or more and that due to federal and state mismanagement of land sales, this land could easily have been purchased by a speculator with a much less developed sense of social consciousness. Since a 160-acre homestead was not large enough to grow wheat profitably, Chapman's insistence that settlers buy larger tracts from him worked to their advantage. Finally, as Chapman pointed out, settlers had not wanted the land until he had demonstrated its potential. Chapman's willingness, furthermore, to supply cultivation information to settlers who bought land from him also provided a service neglected by federal and state agencies.

Henry Miller, a German immigrant, and Henry Lux, an Alsatian immigrant, both wholesale butchers in gold-rush San Francisco, soon surpassed Chapman's holdings. Miller bought rancho land in the northern San Joaquin Valley to pasture

cattle and to grow feed grains. Then in partnership with Lux, Miller increased his purchases by acquiring large tracts of swampland and dry land in the valley. While Lux oversaw their interests in San Francisco, Miller used both straightforward and devious methods to expand their holdings in the valley. Miller bought swampland from the state for no more than \$1.25 an acre and was reimbursed his purchase price by the state by swearing that a like amount of money had been spent reclaiming the land. He also acquired large tracts of more expensive land at the same price by claiming to an understaffed state land office that it was swampland. Miller is reputed to have sworn that he crossed these lands by boat. He neglected to say that the boat was resting on a wagon pulled by horses at the time. Eventually, Miller and Lux owned both banks of the San Joaquin River from west of Modesto to near Madera, as well as a fifty-mile strip along the Kern River. They built an empire of more than a million acres by cheaply buying scrip land warrants issued to veterans and then cashing them in to acquire free federal land, by foreclosing on settlers to whom they lent money, and by controlling vast stretches of additional acreage through the possession of water rights. They owned 700,000 acres in the San Joaquin Valley alone. In addition, they had holdings of two million acres in Nevada and Oregon. Miller and Lux were not concerned with concentrated land ownership as Chapman had been. Miller's philosophy was, "Wise men buy land, fools sell."¹²

Other prominent landowners who began their operations in the 1860s were James Ben Ali Haggin, General Edward F. Beale, James Irvine, and George Hearst. Haggin's San Joaquin Valley holdings later formed the basis of the Kern County Land Company. Beale acquired 172,537 acres by purchasing three ranchos for approximately \$25,000. Along with Llewellyn Bixby, Dr. Thomas Flint, and Benjamin Flint, Irvine formed the Irvine Ranch, covering more than a hundred thousand acres, from three rancho purchases. Hearst established San Simeon Ranch, along the coast northwest of San Luis Obispo, from three ranchos that originally were part of Mission San Miguel. Many others owned substantial amounts of land, but their holdings did not measure up to the very largest. In response to settler criticism, large landowners claimed that the size of the ranchos was not a problem, rather that the Californios had been unable to make them productive.

Leadership from ranchers like Chapman, Miller and Lux, and Beale helped transform California's cattle industry, which had been decimated by low cattle prices resulting from overstocking in 1853 and the droughts of 1856 and 1862 to 1864. These large landowners used their wealth to import meatier and heavier breeding stock and introduce modern feeding and breeding techniques. They also fenced ranges to ensure the quality of their herds. Other large-scale ranchers quickly adopted these methods. Most of the 630,000 head of cattle in California in 1870 were the new stock. The change to beef cattle is reflected in hay production, which increased from 2,038 tons to 551,773 tons between 1850 and 1870. During this period, dairy herds



Haying at Buena Vista Farm, one of a series of magnificent mammoth plates made about 1888 or 1889 by Carleton Watkins on the extensive Kern County holdings of James Ben Ali Haggin, a highly successful lawyer and financier who had come west in the Gold Rush. Haggin began buying land in Kern County in 1873, and in less than a decade, he and his associate, William Carr, owned three hundred thousand acres, some forty thousand of which were under irrigation. Courtesy Huntington Library, San Marino, Calif.

were also introduced, especially around San Francisco Bay and in Humboldt County. Milk cows numbered only 4,280 in the state in 1850, but that number had increased to 164,093 by 1870. California was producing six million pounds of butter and three million pounds of cheese in 1867.

The sheep industry underwent a similar transformation. Sheep had been almost as numerous as cattle in the mission period, but their numbers rapidly declined during the rancho period. Mutton became important during the Gold Rush, surpassing beef as a miner staple until the herds were decimated by the drought of 1862 to 1864. Prominent stockmen such as James Irvine, W. W. Hollister, and Jotham, Llewellyn, and Marcellus Bixby improved sheep quality, a necessity to the resurgence of the industry. In 1849, there were only 20,000 sheep in California, but this number increased to a million in 1860 and 2.75 million in 1870. The stockmen introduced French and Spanish Merinos, English Cotswolds, Leicesters, Southdowns, and even Australian sheep. Improved stock and a demand for wool in the northern states created by the Civil War produced boom conditions until the 1880s. Due to the

poorer quality of the herds in 1860, only two million pounds of wool was marketed, but by 1870, the total had increased to eleven million pounds. Monterey, Los Angeles, San Luis Obispo, and Santa Barbara counties were the centers of the industry. After 1880, the sheep market declined due to the rise of land values, as well as expanding ranches, towns, and farms, which reduced the available pasturage and water supplies, and blocked many of the migration routes.

Crop-cultivation had been brought to a near standstill by gold fever during the early years of the Gold Rush. The exhausting work of placer mining, diminishing supplies of surface gold, and growing numbers of miners led in-state farmers to return to their farms.¹³ Many out-of-state rushers who had been farmers returned to the land as well, as feeding the miners became a more stable way of making a living by 1853. Barley had been the principal grain grown by American farmers before the Gold Rush, but due to the needs of miners, wheat became a major grain by 1860, production standing at six million bushels. By 1870, wheat production had increased to 16,750,000 bushels, with 72 percent coming from the Sacramento and northern San Joaquin valleys, the centers of the American farming population. Wheat production on the big ranches, as well as the small farms, caused the supply to quickly outstrip local demand. Although flooding and drought in the early 1860s sharply reduced output, by 1872 railroads had penetrated 150 miles into the San Joaquin Valley, 50 miles into the Sacramento Valley, and 30 miles into the Salinas Valley, which opened prime wheatlands to settlement.

San Francisco middlemen began exporting much of the wheat surplus by sailing ships to Great Britain, Australia, New York, and China during the early 1860s. California's export suffered from uncertain demand and price conditions since each of these markets already had major sources of wheat. Another market for California's crop came from the war-ravaged South, which had put a serious drain on the availability of midwestern and eastern grains. Severe fluctuations in production, combined with the temporary nature of existing export connections, made it unclear if California would fulfill its potential as a major source of wheat. The gold-rush period was important in that the population increase not only reinvigorated cultivation but established it on a substantial scale. As the cattle industry diminished in importance, for the first time in California history, wheat became more important than cattle.

The transition from cattle to cereal production was not healthy in every respect. Wheat is easy to grow, but it depletes the soil. Eager for maximum returns, many large-scale growers ignored good agricultural practices such as soil replenishment and crop rotation. California's grain farms, many of which were established on rented land and hence lacked long-term commitment from growers, were criticized by many rural travelers for their lack of buildings or other signs that owners intended permanent cultivation.

Exploitation of wheat also required wheat growers to put together large gangs of itinerant workers for cutting and threshing. Indeed, because of large landholding and scant rural population in the state, all types of agriculture relied on itinerant laborers, and because there was a chronic labor shortage in the 1850s and 1860s, Native Americans, Chinese, Mexicans, displaced squatters, and disillusioned miners filled the ranks of these gangs, inadequately at first. Native Americans and Chinese gained acceptance as laborers because they were more readily available, worked hard, and accepted the lowest wages. While Americans and Mexicans tended to bargain and complain individually, Native American and Chinese laborers simplified grower contact with workers by using one of their own as boss and doing what they were told. Minimum decencies given American and Mexican laborers were not accorded to Native American and Chinese laborers.¹⁴ Some of these laborers, which began to include southern and eastern Europeans, became farm entrepreneurs.

Between 1848 and 1872, major strides also were made in fruit growing. Viticulture experienced the most important developments. Through the rancho period, grapes remained important because knowledge was developed about locations and techniques, because there was a market for wine and brandy, and because these commodities were relatively nonperishable. Grape growing became more profitable than any other form of cultivation between 1850 and 1860 because of the heavy consumption of alcohol by miners. This stimulus caused developments in the 1850s that laid the foundation for California's modern wine industry.

Prior to the Gold Rush, grapes had been confined largely to the Los Angeles area, but in order to bring producers closer to the miners and the large urban populations of San Francisco and other rising northern towns, vines were soon planted around San Francisco Bay, in the southern Sacramento Valley, in the northern San Joaquin Valley, and in the Sierra Nevada foothills. The market, however, continued to be dominated by a few prominent Los Angeles-based men such as Pierre and Jean Louis Sansevain, Charles Kohler, John Frohling, and William Wolfskill, who were growers, wine makers, and wine merchants. They were joined by a growing number of smaller-scale growers and unknowledgeable wine makers, who turned out palatable but debased concoctions. In their search for profit, these novices undermined the reputation of California wines for almost fifty years; however, they did determine where most of the state's principal wine growing areas were and were not located.

True viticulture was left to exceptional individuals. Colonel Agoston Haraszthy, a Hungarian nobleman, is generally regarded as the father of California's modern wine industry. Haraszthy came to San Diego from Wisconsin in 1849, searching for relief from asthma and for better economic opportunity. By 1851, Haraszthy had planted the Mission grape and several varieties of Hungarian grapes. He was elected sheriff in 1850 and was elected to the state assembly two years later. During this time



Farm laborers take a rest from the harvest in San Joaquin County to pose for a picture. Beginning with Indians and then Chinese, a succession of ethnic groups, including Japanese, Mexicans, and Okies, predominated in the itinerant work gangs that labored in what Carey McWilliams would term "factories in the field." *California Historical Society, FN-01025.*

he purchased fifty acres near Mission Dolores in San Francisco and a large tract of land near Crystal Springs in what is now San Mateo County. Haraszthy was appointed assayer at the San Francisco branch of the U.S. mint, and he took over the important positions of melter and refiner. When he resigned after being wrongly accused of embezzling gold, Haraszthy subsequently devoted most of his attention to viticulture. He soon realized that coastal fogs adversely affected the sugar content of grapes by depriving them of needed sunlight. In 1857, he bought 560 acres in Sonoma County, an area already proven to have superior grape-growing conditions.

In a year's time, Haraszthy had planted 85,556 vines on his Buena Vista ranch and had 462,000 rooted cuttings in his nursery. In 1860, to improve the quality of California wines, he brought back from Europe 200,000 cuttings and rooted vines representing 1,400 fine varieties. Haraszthy proposed to have the state buy and distrib-



The celebrated viticulturist Agoston Haraszthy stands before his Buena Vista Winery, near the town of Sonoma, 1865. Although modern scholarship has stripped the enterprising Hungarian of his title, the "Father of California Viticulture," Haraszthy is acknowledged for his important role in the development of California winegrowing. He established what was then the largest vineyard in the United States, imported hundreds of varieties of vinifera, and vigorously promoted California wines to a national market in his *Grape Culture, Wines and Wine-Making* (1862) and other writings. *California Historical Society, FN-00301*.

ute the cuttings and vines as well as supervise growing and winemaking operations. Faced with legislative opposition to this expensive plan, he sold many of the cuttings and vines to unskilled vintners. Although progress was noticeably retarded, Haraszthy had been instrumental in introducing improved grape varieties and in moving grapes from a pastoral to a commercial base.¹⁵

Despite the importance of varietal introductions, the Mission grape dominated the industry until the 1880s. Given the transitional stage of development, vine plant-

ings were nonetheless impressive. There were an estimated one million vines in 1855; only five years later there were eight million and by 1870 there were twenty-eight million vines. At this time some 40,000 acres of bearing and nonbearing vines had been planted, producing two million gallons of wine. Los Angeles County was responsible for one-fourth of this production, with one-sixth coming from Sonoma County. Table grapes also gained in prominence in the 1850s and 1860s to meet the demands of miners and townspeople.

Although orchard fruit underwent expansion during this period as well, its progress was much slower. Deciduous and citrus trees were more expensive to purchase and required a longer maturation period. In a mobile society overly concerned with quick wealth, these factors were a liability. In addition, local consumption was too limited for extensive plantings. While all types of deciduous trees capable of prospering in California had been planted by 1870, apple trees, of which there were twenty varieties, were the most numerous. There were two million apple trees, 750,000 peach trees, and 330,000 pear trees in that year. Modest numbers of almond, walnut, and olive trees were also planted. Sacramento, Sonoma, Yuba, Solano, and Alameda counties had the most deciduous tree plantings, with the San Joaquin Valley accounting for only 7 percent, and the counties from Santa Barbara south containing only 6 percent.

The need for more capital and irrigation combined with less population in the south, and the resistance of southern rancho owners to subdivision, retarded the development of citrus production. Most of the groves, which contained 4,000 orange trees and 600 lemon trees in 1860, belonged to William Wolfskill and were located in Los Angeles County. By 1870, plantings had increased to 45,000 citrus trees in the region, with another 5,000 to 6,000 trees located in the northern counties.

The mounting realization that gold could not permanently underwrite a healthy economy benefited agriculture. The state took action as cultivation gained attention. The State Agricultural Society was chartered in 1854 to establish experimental farms, to hold state fairs and stock shows, and to inspect quality improvements. The State Board of Agriculture, established in 1858, offered bounties on new crops and facilitated the transfer of information from prominent experimenters to other farmers. Before cotton and rice crops had a future in California, bounties were offered on them. The French immigrant Louis Prévost's prediction that silk raising would become the state's most profitable commodity led to the planting of 1.8 million mulberry trees by 1870. Bounties were also offered for sugar cane and tobacco, and after being introduced in El Dorado County by Japanese farmers, tea shrubs.

The importance of the Gold Rush to cultivation, according to historian John W. Caughey, can be seen in the state's fence laws. When cattle reigned supreme, the Trespass Act of 1852 required that a farmer had to build a "lawful fence" in order to

collect crop damages from a rancher for livestock depredations. Because of soaring lumber prices, fences, had they been built, would have been worth much more than the land. In 1872 a "no-fence" law was passed, making ranchers responsible for damages caused by their unfenced livestock. Pastoral California had given way to agricultural California.¹⁶

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12

The Golden Skein

California's Gold-Rush Transportation Network

A. C. W. Bethel

To Americans at the beginning of the Gold Rush, California seemed—and was—remote and isolated. In 1849, Rufus Porter, the editor of *Scientific American*, formed a joint-stock company to construct an eight-hundred-foot steam-powered dirigible intended to carry fifty to one hundred passengers “safely and pleasantly” from New York to California in three days.¹ It wouldn’t have worked, but his proposal shows the spirit of the times: mid-nineteenth-century Americans were people in a hurry, and they sought to move faster using steam, iron, and electricity.²

But before the Gold Rush, transportation in thinly settled, cash-poor, pastoral California was limited. The roads that connected the small settlements near the coast were pack trails, improved locally for two-wheeled oxcarts. A few launches propelled by oars or sails carried passengers and freight on San Francisco Bay and the lower reaches of the Sacramento-San Joaquin river system. What manufactured goods Californians enjoyed were bartered for cattle hides and tallow from foreign-flag ships trading along the coast.³

Thus, adequate transport had to be improvised for an influx of gold seekers and merchants who multiplied California’s population tenfold. Moreover, because most gold-rush emigrants didn’t plan to stay in California, they sought only high-yield, short-term investments, and those who did plan to stay sought advantage for their own city’s commerce, often at another city’s loss. Fortunately the flood of new gold-rush wealth created economic incentives for fast transportation, and enterprising individuals quickly created an up-to-date transportation system, including an infrastructure of roads, wharves, bridges, ferries, express offices, shipyards, foundries and factories. Innovative shipbuilders soon devised new types of scows, schooners, and steamboats suited to California conditions.

Except for mail subsidies, development was driven by perceived demand. Large

schedules were better coordinated, they sometimes waited for months. Meanwhile they fretted in the unhealthy climate, unimpressed by their picturesque surroundings and intolerant of the local Hispanic culture.⁵ The three steamships that the Pacific Mail steamship company had built to satisfy its 1847 mail contract were inadequate for the unanticipated gold-rush traffic. *California*, built to carry 250 passengers at most, inaugurated service by steaming into San Francisco in 1849 with 365 crowded on board. Larger and faster steamers were quickly added: Pacific Mail had fourteen ships by 1851 and twenty-three by 1869.⁶

Panama steamers were wooden-hulled side-wheelers driven by massive single-cylinder steam engines. Low boiler pressures required engines with bores and strokes measured in feet to yield a few hundred horsepower. Because these big engines turned slowly, higher speeds required paddlewheels larger in diameter, up to thirty feet or so, and the big paddlewheel boxes gave the black-hulled ships a look of massive power. All the Panama steamers had masts and occasionally supplemented steam power with sails.⁷

Pacific Mail first- and second-class passengers slept in well-ventilated, carpeted staterooms and had access to elegantly furnished public rooms; amenities sometimes included a barber shop and a bath. Steerage passengers slept on canvas bunks stretched over pole frames and stacked three high. Later, space was made for dining tables, and separate dormitories were provided for men and women. Food on the early voyages was monotonous, but Pacific Mail's management made strenuous efforts to improve it, and the line had earned a generally good reputation by 1852. By contrast, passengers traveling on rival lines protested poor food, insolent service, overcrowding, and lack of clean linens.⁸

The usual running time from Panama to San Francisco was eighteen to twenty-one days at first, later reduced to thirteen or fourteen days. Once the Pacific and Atlantic steamer schedules were coordinated, the whole trip could be made in thirty-five days; faster ships and the Panama railroad eventually shortened this to twenty-one. The frequency of sailings from San Francisco was increased from monthly to twice monthly in 1850, and to every ten days in 1860. At San Francisco the departure of a mail steamer—"steamer day"—was the frantic occasion for businessmen to settle accounts and prepare correspondence for the States.⁹

Pacific Mail's operating costs were high. The steamers' inefficient boilers consumed huge quantities of expensive, imported coal, and because there were no repair facilities on the West Coast, Pacific Mail had to build its own docks, ironworks, and machine shops at Benicia, on the Carquinez Strait. They were closed in 1861, when California's industrial base had grown enough to provide alternative repair services.¹⁰

Despite high expenses, Pacific Mail generally paid substantial dividends, and these profits attracted competition throughout the gold-rush period. In 1851, Cornelius Vanderbilt began developing a crossing at Nicaragua, which short-hauled



A train of the Panama Railroad pulls into the terminus of the line in December 1854. Completed just a month later, after five years of construction, the road greatly reduced the time and cost of crossing the isthmus. Whereas the Forty-niners paid the better part of \$100 for a difficult and dangerous five-day trip by dugout canoe and muleback, later travelers could ride coast to coast in three or four hours for \$25, enjoying splendid views of wild tropical jungles from the relative comfort of their cars. *Courtesy Huntington Library, San Marino, Calif.*

Panama by four hundred miles. Reputedly a healthier place than Panama, Nicaragua offered an easier passage by small steamers up the San Juan River and across Lake Nicaragua, then by stagecoach to the Pacific. Between 1853 and 1855, the Nicaragua route drew nearly as many passengers as the Panama crossing. Completion of the Panama railroad and political instability in Nicaragua combined to make the Nicaragua route unattractive after 1856, though it was operated sporadically by Vanderbilt's successors until 1868. Pacific Mail had bought out Vanderbilt in 1859 with a substantial block of company stock that tied his fortunes to theirs.¹¹ Pacific Mail ships were generally well-managed and safe, despite some spectacular wrecks. Pacific Mail's rivals were less meticulous, however. Survivors ascribed the loss of the Independent Line's *Union* to a drunken crew; and when the Opposition Independent Line's *Yankee Blade* went aground, unsupervised crewmen beat and robbed passengers left on board, the captain having already put himself ashore.¹²

Between 1848 and 1869, about 600,000 passengers used the Panama route, more than 46,000 traveling in 1859, the peak year. By contrast, a total of about 156,000 went via Nicaragua. Because freight rates were high—never less than forty cents per pound—only very high priority freight went westbound via Panama: express waybills mention clothing, liquor, medicine, books, and firearms. But more than three-quarters of a billion dollars in coined gold was transported across the isthmus eastbound, nearly \$48 million in 1864, the peak year. The importance of the Panama route declined with the opening of the first transcontinental railroad in 1869; the Pacific Mail then concentrated on its transpacific steamship routes, which it operated into the 1920s.¹³

GOLD-RUSH MARITIME TRADE

Pastoral California's rudimentary economy could not begin to supply the sudden influx of gold seekers. Until the mid-1850s, even food supplies had to be imported. Provisions came from China, Australia, Chile, and the eastern United States, but they were all three to six months sailing time to California. Hawaii was only three to five weeks away, and had already developed commercial agriculture to provision whaling ships, which had concentrated in the Pacific by the 1840s. In 1850, 469 ships arrived at San Francisco from Hawaii, their trade valued at \$380,000. But after 1851, Oregon supplied California's agricultural imports; Oregon was less than half the sailing time away, and its products were cheaper and better. China continued to send foods preferred by Chinese emigrants, Hawaii shifted to tropical products, especially sugar, and the Pacific Northwest later became an important supplier of lumber and coal.¹⁴

By 1856 San Francisco had become a well-built and settled city of fireproof masonry commercial buildings, extensive piers, planked streets, and handsome residential blocks. For lack of local supply, bricks had been imported from New Zealand and Tasmania and granite from Hong Kong, and prefabricated corrugated iron buildings had come from Britain, Asia, and Australia. The demand for lumber quickly outran the capacity of existing California sawmills, and lumber was imported from the East Coast until 1855—eighty million board feet in 1852.¹⁵

San Francisco builders valued coastal redwood for its long, straight grain and resistance to fire. Stands of redwood in the Oakland hills and in the Santa Cruz Mountains had been exploited since Hispanic times, but the largest stands of redwoods occupied a four-hundred-mile coastal belt about thirty miles deep stretching from the north shore of San Francisco Bay to the Oregon border. By 1852, sawmills were turning out lumber at Humboldt Bay and along the Mendocino coast. Much of this cut went to San Francisco, but there were foreign exports as well: by 1854, Humboldt Bay was shipping lumber to Australia, and later to China, Hawaii, Chile, and Tahiti.¹⁶

Navigation along the redwood coast was hazardous. Humboldt Bay offered a protected anchorage, but heavy seas broke over a shallow sandbar at the entrance. Along the eighty-five-mile Mendocino coast, lumber mills were sited on steep bluffs above narrow estuaries, where often the only practical way to deliver lumber to a moored ship was by skidding it down a wooden chute slung from cables. Surging tides, fogs, and submerged rocks made navigation into these "dog-hole" ports dangerous. Steam power, which gave captains better control, would not be fitted to coastal lumber schooners until the 1880s.¹⁷

To meet the special demands of the traffic, shipyards along the West Coast began delivering handy, flat-bottomed, broad-beamed, single-decked sailing schooners of one hundred tons or so beginning in the 1850s. These craft had oversize hatches for quick loading, and could carry as much lumber above deck as below. Deck loads were chained down to prevent dangerous shifting during the voyage. Broad-beamed hulls made the schooners stable even when empty so that they could return northward safely without cargoes.¹⁸

Forty-niners emigrating by way of Cape Horn cleared eastern ports of old ships, and the fast clipper designs that had evolved by the early 1840s now dominated a burst of new construction that briefly eclipsed steam and made America's merchant marine a rival to that of Great Britain. The new clippers had narrow hulls and long, concave bows that cut easily through the sea. Above water, their long, black, flush-decked hulls, often accented by a narrow stripe of white or color, had a sleek, racy look. Clippers spread very large sail areas, and their captains were willing to risk sprung masts and snapped yards in gale-force winds in order to gain a fast passage. The clippers' sailing rigs required large crews; poorly paid, the men were hard to manage, and their officers frequently enforced orders physically. Until well into 1851 it was hard to keep a crew from deserting to the mines at San Francisco, and shipping agents recruited men by offering high wages, or by shanghaiing them.¹⁹

The clippers' impressive performances were aided by the publication of Matthew Maury's charts of ocean winds and currents, which showed that the fastest course under sail was not always the shortest in miles. By following Maury's directions, captains reduced their sailing times to California by forty days or so, whether their ships were clippers or not.²⁰

The clippers' hollow lines and vee-shaped bottoms limited their cargo capacity to perhaps half that of a fuller-bodied ship, and their operating expenses were high. In 1850-51, when high-priority freight rates to California were as much as sixty dollars a ton, or one dollar per cubic foot, a single voyage could repay more than the clipper had cost; but freight rates slipped to thirty dollars a ton by 1853, and to \$7.50 a ton by 1858, half of the rate that clippers needed to break even. After the Civil War, America's wooden-hulled merchant marine entered a long decline, and British iron-hulled sailing ships dominated California's growing wheat trade with Liverpool.²¹



The *Flying Cloud*, probably the most famous of all clipper ships, prepares for her maiden voyage, from East Boston to San Francisco, in a wood engraving that appeared in *Gleason's Pictorial Drawing Room Companion* in May 1851. Built for speed, clippers carried less freight and fewer passengers than slower vessels, but Forty-niners willingly paid premium prices—as much as \$1,000—for passage on one of these glorious vessels. Young Josiah Creesy, who first captained the *Flying Cloud*, drove her around Cape Horn in midwinter and passed through the Golden Gate in a record eighty-nine days, some two or three months faster than broader-beamed ships. *California Historical Society, FN-30960.*

BAY AND RIVER TRAFFIC

San Francisco became gold-rush California's entrepôt because its location just inside the Golden Gate was convenient for arriving ships, and it gave easy access to the Sacramento–San Joaquin river system, which became a supply highway to the mines. River towns—Stockton, Sacramento, Marysville, Colusa, and Red Bluff—grew as centers where goods brought from San Francisco by riverboat could be forwarded by pack train or wagon to the mining towns. Sacramento, the busiest of the river ports, received at least 165,000 tons of freight in 1852, of which perhaps 10 percent was used locally and 15 percent was forwarded upriver, and the rest sent on to the mines,



The side-wheeler *Yosemite* departs for Sacramento from the Broadway wharf of the California Steam Navigation Company, about 1865. Steamboats not only provided a swift and reliable mode of transportation for passengers and freight, but also offered an agreeable way of seeing the California countryside. After an excursion from San Francisco to the state capital in the spring of 1859, the publisher of *Hutchings' California Magazine* declared he "could not recommend a tour which can be made with so much ease, and is so generally calculated to please every variety of tastes, as a trip on the bay and river." *Courtesy Society of California Pioneers.*

three hundred to four hundred tons a day at the height of the season.²² At first the trip upriver from San Francisco to Sacramento or Stockton usually took about a week. Labyrinthine sloughs could easily disorient navigation, and riverbank foliage sometimes screened off the wind so that the boats had to be rowed or hauled from shore. Clouds of voracious mosquitoes added to the passengers' discomforts.²³

To expedite bay and river freight, local boatyards developed a distinctive, blunt-ended, flat-bottomed scow schooner in the early 1850s. These surprisingly fast and handy boats carried bulk cargoes, such as hay and potatoes, stacked so high on their decks that the helmsman steered from a raised "pulpit" in order to see ahead.²⁴ The first steamboats were serving bay and river ports by late 1849; there were about fifty

in service a year later. Competition for fast passages soon led to spirited racing, in which steamboat pilots tried to push rival boats ashore or zigzagged to keep them from passing. Passengers wagered on the outcome and sometimes fired pistols at the competition's boat. Deadly boiler explosions resulted from excess steam and deferred maintenance, snags and collisions sank boats, and shifting sandbars in poorly charted rivers stranded them.²⁵ Racing was ended and tariffs were stabilized by the 1854 merger of several competing steamer lines into the California Steam Navigation Company. Because it was fairly easy to finance a steamboat, the merger never achieved a total monopoly, and there were still occasional rate wars, but increased demand generated enough business for these additional boats, which were often eventually absorbed into the merger.²⁶

Fast, elegantly furnished side-wheel steamers provided daily service connecting San Francisco with Sacramento and Stockton in nine or ten hours, though the Sacramento trip was once made in less than six. Smaller stern-wheel steamboats that drew as little as two feet of water served points on the shallow, tortuous stretches of the upper rivers. Because shallow hulls lacked internal stiffness, the smaller, upriver steamers had to be strengthened externally with a cat's cradle of cables attached to a vertical post, called a "hog post," that extended above the superstructure. The little steamers could tow barges by means of a cable attached to a swivel mounted on the hog post, an arrangement that kept the towing cable clear of the stern-wheel and gave the boat's rudders good leverage against the resistance of the barge.²⁷

Initially there was only a little downriver freight, mostly in hay and cordwood, but tonnages grew with the development of California's bonanza grain-based agriculture, and downriver freight equaled upriver freight by 1861. Throughout the river system, hundreds of landings, some improvised from brush and planks, became shipping points for otherwise isolated farms, where steamboats would stop for a flag or a lantern signal. Red Bluff was the head of navigation on the Sacramento after snags were cleared above Colusa in 1852. At first, upriver boats regularly reached Marysville on the Feather River, but water diversion and silting impeded navigation after 1855. During the high-water season, from January until July, small, shallow-draft boats steamed south almost to Fresno on the San Joaquin.²⁸

PACKING TO THE MINES

In the absence of roads, supplies at first reached the mining camps by pack mules. The mules were managed by experienced Mexican muleteers, or *arrieros*. Their Mexican pack saddles rested the load on a straw-stuffed leather bag, called an *aparejo*, instead of on wooden crossbucks. The *aparejo* was heavier, but it was easier on the animals' backs, and the Army later also adopted it. A mule could pack from 200 to 350 pounds of freight twenty-five to thirty-five miles a day, depending on ter-

rain. Mule loads included flour, beans, whiskey, chairs, tables, plows, pianos, and iron safes.²⁹

Because each miner consumed at least a pound of supplies daily, packing to the mines required large numbers of mules: 2,500 mules carried freight from Marysville to Downieville, for example, providing employment for perhaps four hundred men. One thousand pack mules left Marysville in one day, carrying one hundred tons of freight, the equivalent of two steamboat loads. Packing was a seasonal business, but sometimes pack trains operated in the Sierra winter, carrying barley along with the freight because there was no forage for the animals. Sometimes animals and muleteers froze to death. Other mules perished in falls caused by shifting packs or unstable ground, and robbers and hostile Indians sometimes attacked the trains.³⁰

WAGON ROADS, BRIDGES, AND FERRIES

Wagon freighting had natural advantages over packing: a mule could draw about two thousand pounds, many times the load that it could pack, and wagons did not have to be unloaded every night. But because wagons could not follow a contour line, wagon roads first had to be graded into the Sierra foothills from the river ports. Some roads were built and maintained by joint-stock toll road companies—there were sixty-four of them in California by 1858—but merchants and civic boosters often subscribed for road improvements without charging tolls, and counties built some roads with public funds. Many gold-rush road improvements were just enough to get the wagons through, with hairpin turns and grades as steep as fourteen degrees, but other construction was substantial. Cuts were blasted with black powder and then cleared with picks and shovels.

Bridges—117 by 1856—crossed ravines, and rock cribbing supported fills. Culverts and diversion ditches sometimes drained roadbeds, though heavy rains still left them so muddy that wagons mired to the hubs. In the winter, scrapers and the tramping of animal hooves cleared some snow, though many mountain roads could be operated only during warmer and drier seasons. These roads were often only a foot or so wider than the wagons that used them. Frequent turnouts allowed wagons to pass, and loaded wagons going uphill had the right of way. Iron tires crashing over uneven, rocky ground announced their coming, as did jangling brass bells, tuned to a chord—usually C, E, G, C—and fastened to flattened hoops above the collars of the lead span.³¹

Swift-flowing rivers dissect the Sierra foothills, so ferries and bridges became nodal points in the road system. The first ferries were skiffs—wagon boxes were floated across—but skiffs were soon replaced by flat-bottomed barges large enough to carry a wagon and team. Some early bridges that replaced ferries were plank roadways floated on pontoons, but wooden truss bridges were introduced in 1850. The trusses were often housed over to protect their structural members from the el-



A pack train makes its way through a snow storm in a wood engraving after a design by Charles Nahl, 1856. Packers and their mules encountered a variety of dangers in carrying supplies to mining camps, but winter trips were especially hazardous. When a tremendous storm caught one train between Grass Valley and Onion Valley, all but three of forty-five mules perished before the snows lifted. *California Historical Society, FN-30968.*

ements, though floods swept away ferries and bridges alike. Wire rope, widely used in mining, was adopted for suspension bridge construction by 1854.³²

FREIGHT WAGON TECHNOLOGY

California freight wagon boxes were flat-floored and long—sixteen to twenty feet—but only three or four feet wide. Their sides were often overtopped by bulky loads stacked as high as fifteen feet. For oversized loads, such as boilers, the box was removed and the load was secured directly to the running gear. Six-foot-high rear wheels and iron tires up to four inches wide reduced the pulling effort required of the

animals. Wagon builders selected different hardwoods for different structural functions, then seasoned the wood for three to five years to prevent shrinkage. Rugged freight wagons could weigh nearly two tons empty, and loads of six to eight tons were common. With a trailer, or "back-action," the load could be roughly equal to one of today's long-haul trucks.

The number of mules used depended on the load and the terrain; sometimes there were twelve to twenty or more mules, all controlled by a single rein, called a jerk line, that ran forward to the bit of the left leader. The mules were trained to act as a coordinated team, and when the wagon rounded a turn, some of the mules would jump over the chain that harnessed them to the wagon tongue and pull tangent to the curve, because a force at an angle to the wagon tongue would only tend to pull the wagon off the road. Teamsters were famous for their foul vocabulary, and they encouraged their teams with whip-crackings and tossed pebbles, but most of them treated their animals humanely for reasons of both prudence and affection. Still, the work was hard, and on steep grades the animals could sometimes pull only forty or fifty feet before needing a rest.³³

THE TRANS-SIERRA ROADS

Covered-wagon emigrants opened the first roads across the Sierra. At first some of these roads were so steep and rugged that wagons had to be disassembled and packed piecemeal over the rougher stretches. California communities that hoped to gain the emigrants' commerce improved these roads with some bridging and grading. By 1852, half a dozen of them were in passable condition, and the emigrant's choice of route depended on his or her destination. The Carson route, which went from Nevada south of Lake Tahoe to Placerville, attracted the most traffic in spite of its double summit; the Donner Pass route had only a single summit, but it fell out of favor because of repeated, difficult fords in the Truckee River canyon.³⁴

California's isolation furnished another motive for trans-Sierra roadbuilding. Popular enthusiasm expressed in organized meetings and petitions resulted in state legislation in 1854 to build a trans-Sierra highway, despite steamship company opposition. Although state courts invalidated this legislation on constitutional grounds—Article VIII required that large expenditures be submitted directly to the voters—Sacramento, Placer, and Yolo counties subscribed \$50,000 for an improved Placerville–Lake Tahoe road, to be graded twelve feet wide and cleared of all brush and rocks. It opened in 1858. The discovery of the Comstock silver lode in 1859 made the Placerville road a major freight and stagecoaching highway, supplying a Nevada population of up to 40,000 people. In 1863, 30,000 tons of freight and 56,500 people passed over the road. Traffic was so dense that it was difficult for a wagon to re-enter the traffic stream from a turnout, and delays limited a day's



A huge freight schooner pulled by a six-span team of mules pauses at Webster's Station, in the shadow of Sugar Loaf Mountain on the Placerville Road, about 1865. Built along stretches of the old Johnson's Cutoff, an alternative to the Carson Emigrant Trail, the road opened in 1858, and until the decline of the Comstock Lode in the mid-1860s, it was the great artery of travel over the Sierra Nevada. In addition to the tons of freight that rumbled over the road, thousands of overland travelers passed this way, including Horace Greeley and Mark Twain. *Courtesy Society of California Pioneers.*

progress to eight miles or so. Toll road companies financed extensive improvements that cost up to \$5,000 per mile, and maintenance costs were \$2,000 to \$3,000 per mile yearly, but freight alone brought in at least \$3 million in tolls in 1862.³⁵

Then in 1862, the Central Pacific Railroad began construction east from Sacramento, with the goal of laying track along a continuous ridge rising from Auburn to Donner Pass, down the Truckee River canyon, and from there east across Nevada. The Pacific Railroad Acts of 1862 and 1864 authorized loans of federal government bonds to subsidize this construction, but the bonds were slow to arrive and did not

remotely cover construction costs. To generate badly needed revenue, the railroad graded the Dutch Flat toll road parallel to the planned rail line, in order to provide a connection to the Comstock from the end of the advancing track. Completed in 1864, it cost the chronically cash-poor railroad \$350,000, but teamsters soon preferred it to the Placerville road, and it yielded a million dollars in revenue yearly. The road proved to be the most important trans-Sierra highway until the railroad was completed to Nevada in 1868.³⁶

THE EXPRESSES

For lack of resources, there was no government mail service to California's mining camps at first, and the wait at the San Francisco post office could be hours long. By late 1849, enterprising private-sector expressmen filled the gap, charging miners in the mountains a dollar for asking after their mail, and an ounce of gold for each letter that they brought back from San Francisco. Expressmen soon added other services, such as carrying gold dust to San Francisco and bringing back newspapers. Express was packed on mules or, in winter, by the expressmen themselves, using snowshoes or skis; the latter were introduced into California by Norwegian-born expressman John Thompson.³⁷

By the 1850s, over sixty express companies served the mining camps. Most of these companies were one-man operations, with a service area defined by steep ravines and ridges. Consolidation began in 1849, when Adams & Company, which had been in the express business in the east since 1840, opened a California branch and contracted with small California express companies to carry parcels east by ship. By 1853, Adams was an important California business house, though one with a reputation for sharp and shady dealing.

Wells Fargo, organized in 1851 by some of the founders of American Express to do business in California, purchased smaller expresses and quickly developed a statewide network of branch offices, operating 56 of them by October 1856, and 147 by 1860. These branch offices accepted banking deposits, bought gold dust, provided secure, fireproof storage, and accepted and distributed express. Wells Fargo carried first-class mail until 1895 federal legislation prohibited it; patrons willingly paid express charges on top of U.S. postage. The business panic of 1855, which ruined Adams & Company in California, distracted Wells Fargo only briefly, a reflection of the firm's sound management and reputation for business integrity.³⁸

STAGECOACHING

Stagecoach routes soon radiated from the river ports to the foothill mining towns. Other routes crossed the valley floor to link Stockton, Sacramento, and Marysville,

Marysville with Colusa, and Stockton with Oakland via Livermore Pass. Stages covered the 188-mile route from Sacramento to Shasta in about thirty hours, and competed successfully with upriver steamboats. Visalia, about 150 miles south of Mariposa, became a staging center for the Kern River mines in 1862; these mines could also be reached by stage from Los Angeles over Tejon Pass by 1865. By 1853 a dozen different stagecoaching companies operated from Sacramento—the busiest staging center—employing three to twelve coaches and from 35 to 150 horses. Large-scale operation offered the advantages of lower costs, convenient connections for longer journeys, and better equipment. In 1854, as happened with river steamers, about five-sixths of California staging was consolidated into the California Stage Company, capitalized at a million dollars. Despite consolidation, competition remained vigorous. Some Stockton lines and all the southern California lines remained independent, some lines were later returned to their original owners, and independent operators continually added new routes.³⁹

Stagecoaching across the Sierra over the Placerville–Lake Tahoe road began in 1857, and by 1864 Louis McLane's Pioneer Line was running four coaches each way daily. After the completion of the Sacramento Valley Railroad from Sacramento to Folsom in 1856, coordinated steamboat, rail, and stage schedules reduced the San Francisco–Virginia City trip to twenty-four hours. Wells Fargo acquired the Pioneer Line in 1864 and the California Stage Company's Dutch Flat route the next year, though this was not generally known until their grand consolidation of most staging operations west of the Missouri River in 1866.⁴⁰

Continuing complaints of dilatory steamship mail service led Californians to agitate for overland mail delivery. The first such service was the heavily subsidized but underutilized San Diego–San Antonio mail of 1857; the next year, John Butterfield's Overland Mail began running on a twice-weekly, twenty-five-day schedule between San Francisco and the railheads for Memphis and St. Louis. The roundabout route by way of Yuma allowed year-round operation but probably also reflected the postmaster-general's southern sectional orientation. The well-managed line operated regularly, often ahead of schedule, and by 1860 the stages were carrying more mail than the steamers did. Stages ran day and night, and passengers slept on board despite the rough ride. The coaches required eighty hours to cover the route between San Francisco and Los Angeles, via Pacheco Pass, Visalia, and San Fernando Pass, so the average speed was only about five miles an hour.⁴¹

In 1861 the Overland Mail was briefly rerouted along the coast via Santa Susana Pass, Santa Barbara, Gaviota Pass, and San Luis Obispo. This route later passed through a series of owners who offered indifferent service until a competent superintendent took charge in 1868, a year in which the coast line began providing daily departures using 272 horses and 23 stages. San Diego stagecoaches made connections

with the overland and coast lines at Los Angeles, and also offered direct service to San Bernardino via Temecula and, in 1868, to Yuma.⁴²

A federally subsidized monthly mail had used the Placerville–Salt Lake route since 1851; in 1861, the Overland Mail was shifted to this route, receiving a million-dollar subsidy to operate a daily mail and a semi-weekly pony express that moved the mail faster, but for very high charges. The Pony Express, begun by the Central Overland and California Pike's Peak Express the previous year without a subsidy, ran only until the completion of the overland telegraph in October 1861, unable, as they then said, to compete with lightning.⁴³

STAGECOACH TRAVEL AND TECHNOLOGY

At first, staging was by spring wagons drawn by mustangs or mules, but soon experienced stage operators imported better livestock and Concord coaches. The Concord's curved ash body rested on long leather thoroughbraces that divided the 2,500-pound weight of the coach into two parts, reducing the shock of a rough road and making it easier for the team to start the coach. Nine to twelve passengers rode inside, and up to a dozen more on the flat roof. On difficult roads, stage operators substituted thoroughbraced "mud wagons" that were canvas-roofed, lighter, and lower-slung than the Concorde.⁴⁴

Because they served passengers, stagecoach drivers (or reinsmen) generally had more social graces than wagon freighters, had much higher social status, and were usually better educated. Reinsmen were popularly called "jehus," after the furious charioteer of 2 Kings 9: 20. The subtle hand movements by which they tightened or slipped the reins to control each pair of animals separately were scarcely noticeable even to passengers sitting beside them, who sometimes mistakenly attributed the driver's skill to the native intelligence of the team. The horses were hitched loosely, so that jolts to the wheels that jerked the wagon tongue were not transmitted to the animals. Drivers usually made no effort to avoid potholes or rocks, allowing the horses to find their own way so that they would be reliable in darkness or bad weather. Although there was some racing between rival stage lines, the horses were usually driven only at the walk or trot.⁴⁵

Passengers had mixed opinions about stage travel. Journalists sometimes wrote derisive verse about their discomforts and inconveniences, but passengers who found the jarring, shaking ride excruciating nevertheless enjoyed the scenery, found the rapid pace exhilarating, and admired the drivers' skill. Some passengers objected to their fellow passengers' constant spitting and foul language, and complained of clouds of choking dust. To make uphill grades easier on the animals, passengers were expected to get out and walk, and the men were expected to push. Accidents



A Concord coach prepares to get under way from a stop at the Oso House in a photograph taken in 1859 by Carleton Watkins. Despite the graceful lines of the celebrated coach, staging was invariably an ordeal of rough roads, bad company, long days, and clouds of dust. *California Historical Society, FN-24569.*

were accepted as unavoidable hazards of travel. Top-heavy coaches overturned and tumbled down ravines, and rough roads sometimes threw drivers from their boxes, but despite broken bones, they were often able to regain control of their teams. Passengers were advised to stay aboard a runaway coach; when coaches overturned, injuries were often limited to bruises and scratches. In wet weather, deeply rutted, muddy roads, washouts, and rain-swollen fords slowed travel or stopped it altogether. When high water swept coaches downstream, passengers had to swim or drown.⁴⁶

SOUTHERN CALIFORNIA GOLD-RUSH TRANSPORTATION

Isolated from the mining regions by the steep and rugged Transverse Ranges, southern California developed as a freighting and stagecoaching center for Arizona and Utah.⁴⁷ Commercial freighting between Los Angeles and the rude harbor at San Pe-

dro began before the Gold Rush, and by 1853 rival stagecoach operators were racing each other over the rough twenty-mile road. A year later, the transportation partnership of Phineas Banning, an energetic freighter and stage driver, and David Alexander used five hundred mules, thirty or forty horses, forty wagons, and fifteen stages.

In 1857, Banning began dredging the marshy back bay behind Rattlesnake (now Terminal) Island to create a channel six to ten feet deep leading to a protected wharf for shallow-draft coastal vessels and for lighters—barges that Banning used to unload cargo from larger ships that had to anchor in deeper water. In 1858 and 1859, Banning's wharf—he named the place Wilmington, after his Delaware hometown—imported 7,000 tons of merchandise and more than 1.5 million board feet of lumber. Exports were agricultural products, especially grapes and, after the Owens Valley mines began production, silver bullion. In 1869, southern California's first railroad connected Los Angeles with Wilmington.⁴⁸

Beginning in 1847, Mormons had pioneered a freighting corridor from Salt Lake City south and west through Provo, Cedar City, Las Vegas, and Cajon Pass to their satellite settlement at San Bernardino. In 1855, Banning and Alexander and others began hauling freight to Salt Lake City over the all-year road. When winter closed the Sierra passes, freight from northern California was shipped to Los Angeles to be forwarded over the corridor to Utah; some freight was shipped as far as Idaho and Montana. Sometimes a hundred tons of freight were warehoused in Los Angeles awaiting shipment. The road was challenging: Cajon Pass had grades as steep as 30 percent until 1861, and one stretch of fifty-five miles had no source of water; the federal government allocated an inadequate \$25,000 for improvements in 1854.⁴⁹

Although the Mormon colony left in 1858, San Bernardino developed as a lumbering and agricultural center and generated freight in its own right. During the Civil War, Los Angeles-based freighters supplied military posts at Yuma and Tucson in Arizona from the quartermaster depot at Wilmington. Gold discoveries on the Arizona bank of the Colorado River in 1862 generated traffic over the Bradshaw road east from San Geronio Pass to Ehrenberg and La Paz. Finally, freight traffic to and from the Owens Valley mines grew from the mid-1860s.⁵⁰

From 1857 to 1861, twenty-eight of the Army's camels were based at Fort Tejon, in the Transverse Ranges north of Los Angeles. The camels had been imported in response to dramatic increases in military transportation costs after victory in the Mexican-American War led the United States to annex large tracts of desert. Camels could pack seven hundred pounds easily, though their swaying gait required special packing techniques. The Civil War ended the experiment, however, and the unloved animals were sold. Civilian freighters used camels across the Sierra and in Nevada, but the beasts so frightened horses that public opinion restricted their use. Most were eventually turned loose to fend for themselves.⁵¹

THE BEGINNINGS OF EAST BAY COMMUTING

Since 1851, a ferry had run from San Francisco across the bay to the foot of Broadway, on the estuary separating Oakland from Alameda, but the shallow sand bar at the estuary mouth limited the size of the boats and made navigation slow and tricky. A shorter, more direct route from San Francisco to Oakland Point opened in 1862, connecting with a commuter train that steamed along Seventh Street to downtown Oakland. Demand soon justified six round trips daily. A similar rail and ferry system was introduced across the estuary at Alameda, and in 1866 this line introduced the double-ended, beam-engined, side-wheel ferryboat that soon came to typify San Francisco commuting. This technology functioned alongside much newer types of propulsion until well into the twentieth century, when automobiles and bridges made the ferry system redundant.⁵²

At the beginning of the Gold Rush, the eastern shore of San Francisco Bay had been important only as a route to the mines, but by the early 1860s, helped by a sunnier climate than San Francisco's, Oakland and Alameda were growing as commuter suburbs. These communities attracted people who wanted churches, schools, and shaded, spacious neighborhoods, and who thought that San Francisco catered to vice and corruption. By the end of the decade, a settled metropolitan area was emerging around San Francisco Bay from the confusion of the Gold Rush.

CONCLUSION

During the Gold Rush, Californians extemporized a modern, statewide transportation network of ocean and river navigation, wagon roads, telegraph lines, and the beginnings of a railroad network. The railroads would soon transform California yet again, making shipping and traveling faster, cheaper, and easier, making the trans-Sierra roads irrelevant, and with the development of agriculture and the decline of mining, reorienting the axis of travel away from the foothills to the length of the Central Valley. Some stagecoaching and wagon freighting would continue into the early twentieth century, but only as feeders to the railroads. Then motor vehicles running on a new system of hard-surfaced roads would make them redundant, along with much of the state's railroad mileage. River traffic would continue well into the first half of the twentieth century, sometimes prospering. So would coastal steamers, though the convex contour of California's coastline lengthened their routes compared to the more direct rail lines. The Panama route would not be important again until the opening of the canal in 1914. Thus it is tempting to look at gold-rush transportation as a twenty-year preliminary to the very different transportation pattern that evolved later. In any case, it was a marvel of improvisation and ingenuity.

NOTES

1. The only general history of California transportation is Rockwell Dennis Hunt and William Sheffield Ament, *Oxcart to Airplane* (Los Angeles: Powell, 1929); it is engagingly written but thinly documented. H. Wilbur Hoffman, *Sagas of Old Western Travel and Transport* (San Diego: Howell-North, 1980), is well illustrated, readable, accurate, and enlivened with invented conversations; its scope is broader in time and space than this essay, but gold-rush California is included. Hubert Howe Bancroft, *History of California*, 7 vols. (1886-1890; reprint, Santa Barbara: Wallace Hebbard, 1970), weaves gold-rush transportation through other material in vols. 6 and 7; the only good index is Everett Gordon Hager and Anna Marie Hager, *The Zamorano Index to "History of California" by Hubert Howe Bancroft*, 2 vols. (Los Angeles: University of Southern California, 1985). James D. Hart, *Companion to California*, rev. ed. (Berkeley: University of California Press, 1987), is encyclopedic. Topical maps accompanied by well-researched text are in Warren A. Beck and Inez D. Haase, *Historical Atlas of California* (Norman: University of Oklahoma Press, 1974). R. N. Preston, *Early California Atlas Northern Edition* and *Early California Atlas Southern Edition* (Portland: Binford and Mort, 1974) enable the reader to trace wagon roads and stagecoach routes with a magnifying glass, eyestrain, and some imagination.

2. T. H. Watkins, "The Revoloidal Spindle and the Wondrous Avitor," *American West* 4 (February 1967), and Kenneth Johnson, *Aerial California* (Los Angeles: Dawson's Book Shop, 1961).

3. Jessie Davies Francis, *An Economic and Social History of Mexican California, 1822-1846*, vol. 1: *Chiefly Economic* (New York: Arno Press, 1976), 509-77, 713-41; Alfred Robinson, *Life in California* (1846; reprint, Santa Barbara: Peregrine Smith, 1970), 55-60; John Bidwell, "Life in California before the Gold Discovery," *Century* 61 (December 1890): 171.

4. John Haskell Kemble, *The Panama Route* (Berkeley: University of California Press, 1943; reprint, Columbia: University of South Carolina Press, 1990), chap. 7; James P. Delgado, *To California by Sea: A Maritime History of the Gold Rush* (Columbia: University of South Carolina Press, 1990), chap. 2.

5. *Ibid.*, 166-78.

6. John Haskell Kemble, "A Hundred Years of Pacific Mail," *American Neptune* 10 (April 1950): 130. For a biography of Pacific Mail founder William Aspinwall, see Col. Duncan S. Somerville, *The Aspinwall Empire* (Mystic, Conn.: Mystic Seaport Museum, 1983).

7. Kemble, *Panama Route*, 53-54, 116-21, app. 1.

8. *Ibid.*, 121-24, 156-63.

9. *Ibid.*, 147-53.

10. *Ibid.*, 134-39.

11. Kemble, "A Hundred Years," 126-29; Kemble, *Panama Route*, 86-87, chap. 3; David I. Folkman, Jr., *The Nicaragua Route* (Salt Lake City: University of Utah Press, 1972).

12. Lack of charts increased the hazards of navigation. Spanish coastal charts were unavailable to Americans; U.S. Coast Survey charts began appearing in 1855, and the first edition of the *Coast Pilot* was published in 1858, but the federal government was unwilling to chart foreign coasts on the Panama route. Oscar Lewis, *George Davidson: Pioneer West Coast Scientist* (Berkeley: University of California Press, 1954), 48-51; Kemble, "A Hundred Years," 27, 133-34, 143-44.

13. Kemble, *Panama Route*, 148, 174-75, 197, apps. 2, 3; Kemble, "A Hundred Years," 131 ff.; Folkman, *Nicaragua Route*, app. B; Oscar Osburn Winther, *Express and Stagecoach Days in California* (Stanford: Stanford University Press, 1936), 69-70.

14. In a sense, gold-rush demand returned California to a hunter-gatherer food economy, but on an international scale. Lary M. Dilsaver, "Food Supply for the California Gold Rush," *California Geographer* 23 (1983).

15. Delgado, *To California by Sea*, 43-44; Roger W. Lotchin, *San Francisco, 1846-1856: From Hamlet to City* (New York: Oxford University Press, 1974), 10-11, 49, 57, 73-74, 166-69, 172-73, 178, 181; Harold Kirker, *California's Architectural Frontier* (Santa Barbara: Peregrine Smith, 1973), 38-39, 79.

16. Sherwood D. Burgess, "The Forgotten Redwoods of the East Bay," *California Historical Society Quarterly* 30 (March 1951), and Frank M. Stanger, *Sawmills in the Redwoods: Logging on the San Francisco Peninsula, 1849-1967* (San Mateo, Calif.: San Mateo County Historical Association, 1967). For North Coast lumbering, see Lynwood Carranco, *Redwood Lumber Industry* (San Marino, Calif.: Golden West, 1982); the gold-rush period is covered in chaps. 9, 11. Lynwood Carranco and John T. Labbe, *Logging the Redwoods* (Caldwell, Idaho: Caxton, 1979), covers the same material but in less detail and without documentation. The Pacific Northwest furnished about 60 percent of San Francisco's lumber by 1860; two regional histories of lumbering are Thomas R. Cox, *Mills and Markets: A History of the Pacific Coast Lumber Business to 1900* (Seattle: University of Washington Press, 1974), and Edwin T. Coman, Jr., and Helen M. Gibbs, *Tide, Time and Timber: A Century of Pope and Talbot* (Stanford: Stanford University Press, 1949).

17. The dangers of the Humboldt Bar and historic efforts to tame it are described in Susan Pritchard O'Hara and Gregory Graves, *Saving California's Coast* (Spokane: Arthur H. Clark, 1991). For the hazards of navigating the Mendocino coast, see Karl Kortum and Roger Olmsted, "'... it is a dangerous looking place': Sailing Days on the Redwood Coast," *California Historical Quarterly* 50 (March 1971).

18. Thomas R. Cox, "Single Decks and Flat Bottoms: Building the West Coast's Lumber Fleet, 1850-1929," *Journal of the West* 20 (July 1981): 66-69; Coman and Gibbs, *Time, Tide and Timber*, 179-80; Carranco, *Redwood Lumber Industry*, 105; Kortum and Olmsted, "'... it is a dangerous looking place,'" 43-45; Cox, *Mills and Markets*, 150-55.

19. Carl Cutler, *Greyhounds of the Sea* (Annapolis: U.S. Naval Institute, 1930); app. 7 shows hull lines and sail plans. K. Jack Bauer, *A Maritime History of the United States* (Columbia: University of South Carolina Press, 1988), 89-92; Raymond A. Rydell, *Cape Horn to the Pacific* (Berkeley: University of California Press, 1952), 134-40, chaps. 7, 8. For crews, see Delgado, *To California by Sea*, 97-99; Cutler, *Greyhounds of the Sea*, 186, 222-23; Bauer, *A Maritime History*, 91; Rydell, *Cape Horn*, 148.

20. Frances Leigh Williams, *Matthew Fontaine Maury: Scientist of the Sea* (New Brunswick, N.J.: Rutgers University Press, 1963), chap. 10; Cutler, *Greyhounds of the Sea*, 108, 217-19, 243-44, 259-61.

21. The last clipper was built in 1857, and few survived more than ten years of hard sailing because the leverage of wind against masts and braces damaged their hulls; Rydell, *Cape Horn*, 141, n. 26. The California grain trade began in the 1860s but reached its peak in the 1880s, well after the Gold Rush; Rodman W. Paul, "The Wheat Trade between California and the United Kingdom," *Mississippi Valley Historical Review* 45 (December 1958). Iron

mulls were lighter, roomier, drier, and cheaper to insure, but America built few of them; Bauer, *A Maritime History*, 241-42, 256-58.

22. Early rivals for San Francisco's trade included Benicia and Vallejo; Lotchin, *San Francisco, 1846-1856*, 31-39; for the growth of San Francisco's infrastructure see *ibid.*, 41-44, 76, 76, and Delgado, *To California by Sea*, chap. 3. For patterns of bay and river transportation development, see Mel Scott, *The San Francisco Bay Area: A Metropolis in Perspective*, 2nd ed. (Berkeley: University of California Press, 1985), and Joseph A. McGowan, *History of the Sacramento Valley*, 3 vols. (New York: Lewis, 1961). Also see Thor Severson, *Sacramento, 1839 to 1874: An Illustrated History from Sutter's Fort to Capital City* (n.p.: California Historical Society, 1973). For tonnages, McGowan, *History of the Sacramento Valley*, vol. 1, 63-67, 74, 79-82; Severson, *Sacramento, 1839 to 1874*, 169; Bancroft, *History of California*, vol. 7, 466.

23. Firsthand accounts of early trips upriver are in Elisha Oscar Crosby, *Memoirs: Reminiscences of California and Guatemala, 1849-1864*, ed. Charles Albro Barker (San Marino, Calif.: Huntington Library, 1945), 19-20; Adolphus Windeler, *California Gold Rush Diary of a German Sailor*, ed. W. Turrentine Jackson (Berkeley: Howell-North, 1969), 14, 28-31; Ballard Taylor, *El Dorado, or Adventures in the Path of Empire* (1850; reprint, New York: Knopf, 1949), 163. Before mining debris shoaled the rivers, ships drawing as much as ten feet could sail directly to Sacramento and Stockton, where many were recycled as improvised wharves and buildings; Severson, *Sacramento, 1839 to 1874*, 50-55, 66, 75, 77, 84-87, 90-91; George P. Hammond, *The Weber Era in Stockton History* (Berkeley: Friends of the Bancroft Library, 1982), 94-95, 108.

24. A well-researched photographic essay with a strong text is Roger R. Olmsted, *Square-Toed Packets: Score Schooners of San Francisco Bay* (Cupertino: California History Center, 1988); an introductory chapter describes the beginnings of navigation on the Sacramento River.

25. Jerry MacMullen, *Paddlewheel Days in California* (Stanford: Stanford University Press, 1944); 19-21, 24-32, 68-71; detailed appendices list boats, river ports, and distances. See also Bancroft, *History of California*, vol. 7, 466.

26. MacMullen, *Paddlewheel Days*, 19-23; McGowan, *History of the Sacramento Valley*, vol. 1, 303.

27. John Haskell Kemble, "The Senator," *California Historical Quarterly* 16 (Part 1, 1932), and also his "Chryseopolis: The Queen of the Golden River," *American Neptune* 2 (October 1942); MacMullen, *Paddlewheel Days*, 35, 51-52. For a firsthand account of a trip to Stockton, see "The Great Yo-Semite Valley," *Hutchings' California Magazine* 4 (October 1859), reprinted in Roger Olmsted, ed., *Scenes of Wonder and Curiosity* (Berkeley: Howell-North, 1962). A well-researched photographic essay of the upriver boats, including construction details, is Edward Galland Zelinsky and Nancy Leigh Olmsted, "Upriver Boats—When Red Bluff Was the Head of Navigation," *California History* 64 (Spring 1985): 86-117.

28. Zelinsky and Olmsted, "Upriver Boats," 106-8. An evocative, firsthand account of the river landings is in Captain John Leale, *Recollections of a Tule Sailor* (San Francisco: George Fields, 1939), 46-51. Navigation on the upper Sacramento, McGowan, *History of the Sacramento Valley*, vol. 1, 78-81. For navigation on the San Joaquin and the lower Mokelumne, see MacMullen, *Paddlewheel Days*, chap. 11; app., 144-45. The silting problem was attributed to hydraulic mining; Robert Kelley, *Gold vs. Grain: The Hydraulic Mining Controversy in California's Sacramento Valley* (Glendale, Calif.: Arthur H. Clark, 1959) is an exhaustive political

analysis; his *Battling the Inland Sea: American Political Culture, Public Policy, and the Sacramento Valley, 1850-1986* (Berkeley: University of California Press, 1989) places the silting controversy in the broader context of ongoing attempts to control flooding.

29. A firsthand account is "Packing in the Mountains of California," *Hutchings' California Magazine* 1 (December 1856), reprinted in Olmsted, *Scenes of Wonder*. Details of the Army's adaptation of the *aparejo* are thoroughly illustrated in H. W. Daly, *Manual of Pack Transportation* (1916; reprint, Santa Monica, Calif.: Quail Ranch, 1981), chap. 7. See also McGowan, *History of the Sacramento Valley*, vol. 1, 88-89, 99.

30. "Packing in the Mountains," 117.

31. A scholarly but readable work that includes regional history, road, bridge, and ferry development south from Stockton is Irene Paden and Margaret Schlichtman, *The Big Oak Flat Road to Yosemite* (Oakland: Holmes Book Co., 1959). An article focused on the alignments of roads radiating from Stockton and the development of ferry crossings is Thor Breton, "The Old Mariposa Road," *The Far Westerner* 11 (April 1966); the journal is the publication of the Stockton Corral of Westerners. The road network centered on Shasta City is in part 3 of W. H. Colby, *A Century of Transportation in Shasta County, 1821-1920* (n.p.: Association for Northern California Records and Research, 1982). For Marysville and northern Sierra roads, see Ernest Wiltsee, *The Pioneer Miner and the Pack Mule Express* (San Francisco: California Historical Society, 1931). For evolution of roads, McGowan, *History of the Sacramento Valley*, vol. 1, 18, 49, 79, 101, 112. County road appropriations were sometimes minimal (Colby, *Shasta County*, 28-29), but Sonoma, Napa, and Alameda counties levied taxes for road construction and created a network of roads around San Francisco Bay (Scott, *Bay Area*, 40-41). A cut through solid rock at San Fernando Pass in Los Angeles County was financed with a mixture of public and private funds; Vernet Snyder Ripley, "San Fernando Pass and the Traffic that Went over It, Part 2," *The Quarterly of the Historical Society of Southern California* 29 (September-December 1947), and "Part 3," 30 (March 1948). Also see John W. Robinson, "The Taming of San Fernando Pass," *The Branding Iron* 208 (Summer 1997); the journal is published by the Los Angeles Corral of Westerners. The gold-rush wagon road network is charted in Beck and Haase, *Historical Atlas of California*, map 51. Contemporary photographs showing cuts, fills, and hairpin turns are in Irving Wills, "The Jerk Line Team," *The Westerners Brand Book Nine* (n.p.: Los Angeles Corral of Westerners, 1961). For snowplowing, see Lyndall Baker Landauer, *The Mountain Sea* (Honolulu: Flying Cloud, 1996), 70, and Colby, *Shasta County*, 37. For number of bridges, see Bancroft, *History of California*, vol. 7, 143n. For width of roads, see McGowan, *History of the Sacramento Valley*, vol. 1, 48; rules of the road, 48. For tuned bells, see Wills, "Jerk Line Team," 51-52.

32. For a firsthand description of ferry construction and operation, see Samuel Ward, *Sam Ward in the Gold Rush*, ed. Carvel Collins (Stanford: Stanford University Press, 1949), 121-29. Kramer Adams, *Covered Bridges of the West* (Berkeley: Howell-North, 1963), 13-20, and Colby, *Shasta County*, 21-24, 61-62.

33. McGowan, *History of the Sacramento Valley*, vol. 1, 89; Hoffman, *Sagas*, 46-47, 61, and Wills, "Jerk Line Team," 33, 38-46, 55. Wagon running gear is depicted with wonderful clarity in Nick Eggenhofer, *Wagons, Mules and Men: How the Frontier Moved* (New York: Hastings, 1961), 38-42; California freight wagons were not the Conestogas that Eggenhofer illustrates and discusses, but the wheels and running gear were constructed on the same principles.

34. For trans-Sierra emigrant roads, see George R. Stewart, *California Trail: An Epic*

with *Many Heroes* (New York: McGraw-Hill, 1962); 206-7, 304-6, and map, 300; and Stewart Mitchell, "Crossing the Sierra," *California Highways and Public Works* 29, nos. 9-10 (1949). For a trans-Sierra road that became important in Chico's development see Anita L. Chang, *The Historical Geography of the Humboldt Wagon Road* (Chico: Association for Northern California Records and Research, 1992). An excellent geographical study of trans-Sierra roads is Thomas Frederick Howard, *Sierra Crossing* (Berkeley: University of California Press, 1998).

35. For a thorough account of trans-Sierra road surveys, see Chester Lee White, "Surmounting the Sierra," *Quarterly of the California Historical Society* 7 (March 1928); Mitchell, "Crossing the Sierra," 61, has a detailed and annotated but difficult map showing how the Placerville-Lake Tahoe road evolved. In 1857, federal legislation appropriated money for three wagon roads to the California boundary: one to Honey Lake, another along the 35th parallel to the Mojave River, and a third to Yuma. For Pacific wagon road legislation, see W. Turrentine Jackson, *Wagon Roads West* (New Haven: Yale University Press, 1964; reprint, Lincoln: University of Nebraska Press, 1979), 161-74. Tolls and freight charges, Bancroft, *History of California*, vol. 7, 541. Road construction is treated briefly in Francis P. Farquhar, *History of the Sierra Nevada* (Berkeley: University of California Press, 1965), chap. 11. Farquhar's book is a good regional history; so is Landauer, *Mountain Sea*. See also Edward B. Scott, *The Saga of Lake Tahoe* (Crystal Bay: Sierra Tahoe, 1956), 364-72. The Placerville, Humboldt, and Salt Lake Telegraph Company strung its wires along the Placerville Road to reach Carson City in 1858 and Salt Lake City in 1861; for an overview of northern California telegraph construction, see McGowan, *History of the Sacramento Valley*, vol. 1, 167-70.

36. Mercantilist urban rivalries stimulated road building but hindered railroad construction; see Ward McAfee, *California's Railroad Era, 1850-1911* (San Marino, Calif.: Golden West, 1973), chaps. 3, 4, 5. For the Dutch Flat wagon road, see McAfee, *California's Railroad Era*, 61, and John Hoyt Williams, *A Great and Shining Road* (New York: Times Books, 1988), 59-60, 91, 135.

37. Winther, *Express and Stagecoach Days* is well documented and readable. His *Via Western Express and Stagecoach* (Stanford: Stanford University Press, 1945) is a more popular treatment, without scholarly apparatus. A handsomely illustrated philatelic treatment of the gold-rush expresses is L. Coburn, *Leaves of Gold* (Canton: U.S. Philatelic Classics Society, 1984); Wiltsee, *Pioneer Miner*, has a similar focus. There is a good discussion of the one-man express companies in Winther, *Express and Stagecoach Days*, chap. 1. On snowshoes, see Landauer, *Mountain Sea*, 66-67.

38. Robert J. Chandler, "Integrity Amid Tumult: Wells, Fargo & Co.'s Gold Rush Banking," *California History* 70 (Fall 1991); Winther, *Express and Stagecoach Days*, 42-48, 51-75; for the causes and course of the panic of 1855, chap. 4. See also Edward Hungerford, *Wells Fargo: Advancing the American Frontier* (New York: Random House, 1949) and Noel D. Loomis, *Wells Fargo: An Illustrated History* (New York: Bramhall House, 1968), which is mostly text, despite the title, and well documented. For Wells Fargo first-class mail service, see Wiltsee, *Pioneer Miner*, chap. 9.

39. Winther, *Express and Stagecoach Days*, 91-96, 158-60. Captain William Banning and George Hugh Banning, *Six Horses* (New York: Century, 1930), 47; Harlan Boyd, *Stagecoach Heyday in the San Joaquin Valley* (Bakersfield: Kern County Historical Society, 1983), 16-18, 35-36, 44-46, 48; maps, xii, 17. See also McGowan, *History of the Sacramento Valley*, vol. 1, 87-89, 93, and Bancroft, *History of California*, vol. 7, 151, and n. 46.

40. W. Turrentine Jackson, "A New Look at Wells Fargo, Stagecoaches, and the Pony Ex-

press," *California Historical Society Quarterly* 45 (December 1966), and also his "Wells Fargo Staging over the Sierra," *California Historical Society Quarterly* 49 (June 1970). These articles are in part refutations of Waddell Smith, "Stage Lines and Express Companies in California," *The Far Westerner* 6 (January 1965). Smith argues that Wells Fargo never operated its own stagecoaches in California and did not operate the Pony Express; Jackson is convincing.

41. LeRoy R. Hafen, *The Overland Mail, 1849-1869* (Cleveland: Arthur H. Clark, 1926; reprint, New York: AMS Press, 1969) is a classic account that includes the ocean mail, the Butterfield Overland Mail, the Pony Express, and the complex history of the central route. Ralph Moody, *Stagecoach West* (n.p.: Promontory Press, 1967) is engagingly written and quotes primary sources, but needs to be read with some caution for accuracy. Another classic work is Roscoe P. Conkling and Margaret B. Conkling, *The Butterfield Overland Mail, 1857-1869*, 3 vols. (Glendale, Calif.: Arthur H. Clark, 1947); vol. 3 is the atlas. The Overland's reliability reflects its interlocking directorate with Wells Fargo, which underwrote the initial cost; Jackson, "A New Look at Wells Fargo," 295-303. Omitting the dogleg to Los Angeles would have been shorter and easier, but Angelenos anxious for better service underwrote the extra expense; Ripley, "San Fernando Pass, Part 3," 43-45. A journalist's firsthand account of the first trip west on the Overland Mail is Waterman L. Ormsby, *The Butterfield Overland Mail*, ed. Lyle H. Wright and Josephine Bynum (San Marino, Calif.: Huntington Library, 1942).

42. Charles Outland, *Stagecoaching on El Camino Real: Los Angeles to San Francisco, 1861-1901* (Glendale, Calif.: Arthur H. Clark, 1973) is opinionated, exhaustive, and carefully documented. Outland argues persuasively, against other sources, that there was no staging over the coast route prior to 1861, chap. 1; for development of the route, chaps. 3, 4, 5. See also Walker Tompkins, *Stagecoach Days in Santa Barbara County* (Santa Barbara: McNally & Loftin, West, 1982). For an account of the dangers of contemporary travel along the central coast, see J. Ross Browne, *A Dangerous Journey* (1862; Palo Alto: Arthur Lites, 1950). For San Diego staging see Richard F. Pourade, *The Silver Dons* (San Diego: Union-Tribune, 1963), 172, and also his *The Glory Years* (San Diego: Union Tribune, 1964), 46-49.

43. Hafen, *Overland Mail*, 110-13, 169-87. The Central Overland and California Pike's Peak was overextended even before it undertook the expense of the Pony Express, and was soon auctioned to stagecoaching magnate Ben Holladay (pp. 227-28). Holladay in turn sold all of his stagecoaching operations to Wells Fargo in 1866 (p. 319). For other pony expresses within California, see Jackson, "A New Look at Wells Fargo," 317.

44. Winther, *Express and Stagecoach Days*, 81-86. For Concord coach and mud wagon anatomy, see Eggenhofer, *Wagons, Mules and Men*, 145-76.

45. Banning and Banning, *Six Horses*, 361-73.

46. Firsthand accounts of stage travel are in "A Stage Incident," *Hutchings' California Magazine* 3 (July 1958), reprinted in Olmsted, *Scenes of Wonder*, 236; McGowan, *History of the Sacramento Valley*, vol. 1, 93; Winther, *Express and Stagecoach Days*, 83, 102-5; Banning and Banning, *Six Horses*, 29-30, 31-32 and n.2; and Boyd, *Stagecoach Heyday*, 22, 40.

47. Three good southern California regional histories that discuss transportation are Joseph S. O'Flaherty, *An End and a Beginning: The South Coast and Los Angeles, 1850-1887* (Jericho: Exposition-Lochinvar, 1972), Henry P. Silka, *San Pedro: A Pictorial History* (n.p.: San Pedro Bay Historical Society, 1984), and George William Beattie and Helen Truitt Beattie, *Heritage of the Valley* (Pasadena, Calif.: San Pasqual, 1939). The Beatties' book is a history of the San Bernardino area. For San Diego, see Pourade's *Silver Dons* and *Glory Years*. Harris

Jewmark, *Sixty Years in Southern California*, 4th ed. (Los Angeles: Dawson's Book Shop, 1984) is a detailed but not always accurate reminiscence first published in 1916; W. W. Robinson's informed notes are an asset to the fourth edition. Robert Glass Cleland, "Transportation in California before the Railroads, with Especial Reference to Los Angeles," *Annual Publication of the Historical Society of Southern California* 11 (Part 1, 1918); Frank Rolfe, "Early Day Los Angeles: A Great Wagon Train Center," *Historical Society of Southern California Quarterly* 35 (December 1953); and W. Turrentine Jackson, "Stages, Mails and Express in Southern California: The Role of Wells, Fargo & Co. in the Pre-Railroad Period," *Historical Society of Southern California Quarterly* 56 (Fall 1974). Ripley, "San Fernando Pass," and Robinson, "Taming of San Fernando Pass," are also relevant here. Milton R. Hunter, "Via Mormon Corridor," *Pacific Historical Review* 8 (June 1939) puts the corridor into the larger picture of Mormon history; a firsthand account with a good introductory essay is William B. Rice, "Early Freightage on the Salt Lake-San Bernardino Trail," *Pacific Historical Review* 7 (1937).

48. Silka, *San Pedro*, 22-29, 30-31; Rolfe, "Early Day Los Angeles," 306-7. John W. Robinson, *Southern California's First Railroad* (Los Angeles: Dawson's Book Shop, 1978).

49. Hunter, "Via Mormon Corridor," 184, 188-92, 198-99; Rolfe, "Early Day Los Angeles," 310-13; Jackson, *Wagon Roads West*, 140-41; Beattie and Beattie, *Heritage of the Valley*, 35-37, 400.

50. Military supply routes are in Rolfe, "Early Day Los Angeles," 314-15; for the Bradshaw road, see Beattie and Beattie, *Heritage of the Valley*, 398-400; for more detail, see Francis J. Johnston, *The Bradshaw Trail* (Riverside, Calif.: Riverside Parks Department, 1987). Johnston loves his subject, but his speculations need to be treated with caution.

51. As transportation history, the camels are colorful rather than significant. For the Army's camel experiment, see Harlan D. Fowler, *Camels to California* (Stanford: Stanford University Press, 1950); Fowler's sequel, *Three Caravans to Yuma: The Untold Story of Bactrian Camels in the West* (Glendale, Calif.: Arthur H. Clark, 1980) describes the civilian experiment. See also A. A. Gray, "Camels in California," *Quarterly of the California Historical Society* 9 (December 1930), and Deane Robertson and Peggy Robertson, *Camels in the West* (Sacramento: Arcade House, 1979). For contemporary enthusiasm for camels, see "The Bactrian Camel," *Hutchings' California Magazine* 5 (November 1860), reprinted in Olmsted, *Scenes of Wonder*, 335.

52. Scott, *Bay Area*, 46-47, and Robert A. Ford, *Red Trains in the East Bay* (Glendale, Calif.: Interurbans, 1977), chaps. 1, 2.

13

A Veritable Revolution

The Global Economic Significance of the California Gold Rush

Gerald D. Nash

To many Californians the mention of January 24, 1848, conveys no special meaning, nor is that date widely commemorated in the state. Yet it has a special significance in the history of California, for on that day James Marshall, a moody carpenter from Missouri, discovered the first golden nuggets that resulted in the stampede known as the California Gold Rush. In the remoteness of Sutter's Mill, Marshall could scarcely imagine that his find would set off a succession of events that would have a far-ranging importance for California, the United States, and the world. The timing of the event was crucial also because it happened when the nation was just about to feel the growing impact of the Industrial Revolution—a revolution that in the next half-century would transform the United States from an agrarian society into an industrial giant. Within this broad context the Gold Rush helped to trigger momentous economic changes. In the language of economists, it served as a multiplier—an event that accelerated a chain of interrelated consequences, all of which accelerated economic growth. In both state and nation it spurred the creation of thousands of new businesses, banks, and financial institutions. It stimulated rapid agricultural expansion, quickened the volume of trade and commerce, and created demands for new forms of transportation. Since 1848, the Gold Rush has always had a romantic aura, of course. But it should not be forgotten that it was also a major chapter in California's economic development. As one historian has noted, "The American emphasis on the gold and silver rushes as adventures rather than economic industrialization stood in embarrassing contrast to the more realistic accounts of Mexican, South African, and Australian mining."¹

The Gold Rush spawned a wide range of entrepreneurial activities and led thousands of individuals in California and elsewhere to embark on new business ventures, in manufacturing as well as in service industries. Food, clothing, hardware, mining



California Argonauts—some dressed in the rough clothing of the mines, others wearing oiled, white shirts and ties—stare confidently at us across a century and a half of time. Aware of the historical moment of the great westward movement, the grand adventure of gathering the golden harvest, the Forty-niners preserved their experiences in countless diaries and letters home. Though their sagas of long journeys overland and around the world, their tales of hard labor and struggle in the mines, are the stuff of legend, of even greater significance are the economic, cultural, and social consequences of the Gold Rush. *California Historical Society, FN-25814.*

supplies, all kinds of luxuries, and steamboats for river traffic—these were only a few of the items in great demand, and ambitious men and women scurried to provide them. When mining machinery came to be in short supply, newcomers in less than a decade created an iron industry in northern California. There they manufactured stamp mills, steam engines, and nozzles for hydraulic operations. Already by 1861 more than a thousand workers in San Francisco toiled in the manufacture of mining equipment. The city boasted thirteen iron foundries and thirty machine shops. Twenty-three other foundries operated in other parts of the state. Mining also required many auxiliary operations in need of explosives, and as early as 1855 newcomers to California had built two powder works, reducing the need for imports from the East.²

Gold mining stimulated other industries as well. It created an enormous demand

for lumber, not only for housing, but for mine shafts and tunnels. Within a decade Mendocino and Humboldt counties were producing thirty-five million board-feet annually.³ California also quickly established itself as one of the most important flour-milling states in the Union. In 1848, California had no commercial flour mills to speak of; but by 1860 two hundred flour mills were operating, supplying not only local demand, but exporting large quantities to the entire Rocky Mountain region, and also to China, Japan, Great Britain, and parts of Europe.⁴

The decade after the Gold Rush was an opportune time for wagon and carriage makers. Among the ablest was a young newcomer from the Middle West who made a name for himself very quickly in Placerville. After making his fortune in pioneer California, John Studebaker eventually returned to Indiana. At the turn of the century he became one of the most important automobile manufacturers in the nation—with capital he had amassed during California's pioneer era.⁵

The state's rapid population increase generated a seemingly unlimited demand for clothing, which local enterprisers quickly filled. Within a decade the Mission Woolen Mills became one of the largest in the West. Levi Strauss, one of the most imaginative clothing manufacturers in San Francisco, had great success when he developed blue jeans, a garment particularly well suited for miners and workmen in the 1850s—and generations of other people in succeeding years. Since there was a large number of cattle in California, development of a leather industry in a very short time was eminently feasible. By 1860 the fabrication of boots, harnesses, saddles, and belts for machines was well established.⁶

Retail trade flourished under the conditions stimulated by the Gold Rush. Creation of instant markets with tens of thousands of eager consumers fostered a wide range of wholesale and retail establishments catering to miners. John Bidwell, Alonzo Delano, and Charles M. Weber were some of the merchants who quickly became highly respected citizens and powerful political leaders in the California of the 1850s. Collis P. Huntington, later a railroad tycoon, laid the basis for his fortune in the wholesale trade in Sacramento. He and his partner, Mark Hopkins, began by building the largest wholesale and retail hardware store there and one of the biggest in the entire West. In later years these men branched out to organize the Central Pacific Railroad, which they justly viewed as a key to further expansion of the economy.⁷

Without a doubt, the Gold Rush was the major stimulant of California agriculture in the 1850s. Certainly farming was hardly less significant than gold mining in laying the foundations of California's new economy. Often, when individuals did not succeed in mining they turned to agriculture. Thousands became small farmers, viticulturists, fruit growers, and dairy farmers. Others became sheep and cattle raisers who found lucrative markets not only in California, but up and down the Pacific Coast. The Gold Rush was not merely a local economic event. California's products found their way to



The Huntington & Hopkins Hardware Store on K Street in Sacramento. It was here on a winter's evening in 1861 that the civil engineer Theodore Judah persuaded four shopkeepers who had made their "piles" retailing goods to miners to invest in his dream of a transcontinental railroad. The building of the Central Pacific created enormous fortunes for the Big Four—as Huntington, Hopkins, Stanford, and Crocker came to be called—and played a powerful role in the course of California history. *Courtesy Mariners' Museum, Newport News, Va.*

the Pacific Rim as well. The Gold Rush coincided with the opening of Japan to trade by Commodore Matthew Perry in 1853, and California benefited more from these contacts than any other American state. Commercial relations with China expanded so as a result of aggressive efforts by San Francisco merchants. They found that California farm products enjoyed considerable success in Asia, as did beef and mutton. In 1860, Henry Miller, a German immigrant, had become the largest rancher in the state, with more than three million head of cattle. And the one million sheep reported that year outnumbered the state's inhabitants.*

In just a few years after the first gold discoveries California became one of the most productive grain producers in the nation. Stimulated by the population surge prompted by the Gold Rush, thousands of newcomers became wheat farmers, es-

pecially in the San Joaquin and Sacramento valleys, where the soil was well suited for grain culture. The Gold Rush occurred at a most propitious moment for California wheat culture. The ships that brought the gold seekers to the Pacific Coast often sailed back to Atlantic ports without substantial cargo. With the development of wheat farming, these empty vessels were able to take on bulky grain shipments, giving Californians access to East Coast, British, and continental European markets. Moreover, the Gold Rush had a dynamic impact on the state's agriculture because it coincided with revolutionary technological advances in the 1850s. Cyrus McCormick had just developed his reaper, a machine that greatly reduced the need for hand labor and did much to increase productivity. Since California during the Gold Rush had a chronic labor shortage, such a labor-saving device was particularly important in boosting production. Moreover, the vast open stretches of virgin land in the San Joaquin Valley were extremely well suited to the development of mechanized farming. In some ways, McCormick can be considered as one of the fathers of mechanized agriculture in California during the gold-rush era and even in succeeding years. In 1850, relying on crude, labor-intensive methods, California farmers produced just seventeen thousand bushels of wheat; ten years later their total was sixteen million bushels.¹⁰ Technology and commercial conditions combined to make wheat no less profitable than gold.

The population drawn by the Gold Rush created exciting new markets for California farmers. Climate and soil aided them in quickly developing a wide range of crops. In the 1850s Californians grew apples and oranges, peaches and plums, cherries and figs, among a wide range of new varieties. In only a few years California was well on the way to becoming the fruit basket of the nation. At the same time, new farmers were producing impressive quantities of vegetables, from corn to carrots, squash, and potatoes. Since the growing season was much longer than in the East, the output of California's farmers was prodigious, and very profitable.

Along with fruits and vegetables, some of the new immigrants of the gold-rush generation also laid the foundations for a successful wine industry. Miners may have liked their whiskey, but quite a few also developed a taste for wine. Agoston Haraszthy, an enterprising Hungarian immigrant, quickly grasped the potential opportunities and planted dozens of varieties imported from Europe, as well as new strains. Deservedly, he became known as the father of the California wine industry, since he not only grew a variety of grapes, but built markets both in the state and around the world.¹¹

The growth of mining, business, and agriculture stimulated the establishment of banks and financial institutions. Such expansion was slow in the 1850s only because the California Constitution of 1849 prohibited the creation of commercial banks. The prohibition received widespread support because members of the constitutional convention clearly remembered the Panic of 1837, which, rightly or wrongly, they at-



Picking Wine Grapes Talcoa Vineyards Napa County
Prof. Husmann

Workers harvest wine grapes at Talcoa Vineyards, Napa County, under the supervision of Professor George Husmann, *far right*. Among the most scholarly viticulturists of his day, Husmann built on the knowledge established by Agoston Haraszthy and others, and in 1888 he published the handbook *Grape Culture and Wine Making in California*, which helped to advance the industry. *California Historical Society, FN-21172.*

Contributed to the lax issuance of unbacked paper money by banks. Before 1849 California had had no banks, but the Gold Rush created new needs. Miners required places of safekeeping for their gold, and individuals desired banks to transfer money. Furthermore, the increasing number of business establishments involved in trade and commerce looked for banks to execute their transactions. Initially, eastern banks established branches to provide such services, Wells Fargo among the most prominent. By the late 1850s Californians were also providing capital to develop mining throughout the West, including Oregon, Idaho, Arizona, and Colorado, but most importantly for the rich silver mines on the Comstock Lode in Nevada.¹² Californians organized hundreds of stock companies to finance such ventures. The lure of greater profits led one of the most powerful financiers, Sam Brannan, to lobby the California legislature for the removal of the constitutional prohibitions on commercial banking. Finally, in 1862, the lawmakers authorized the establishment of state-chartered savings banks; two years later they allowed commercial banking. As the Civil War further fueled an economic boom, scores of new bankers appeared. One of the most important was William Ralston, who in 1864 organized the Bank of California. Along with William Sharon, his manager in Nevada, Ralston became



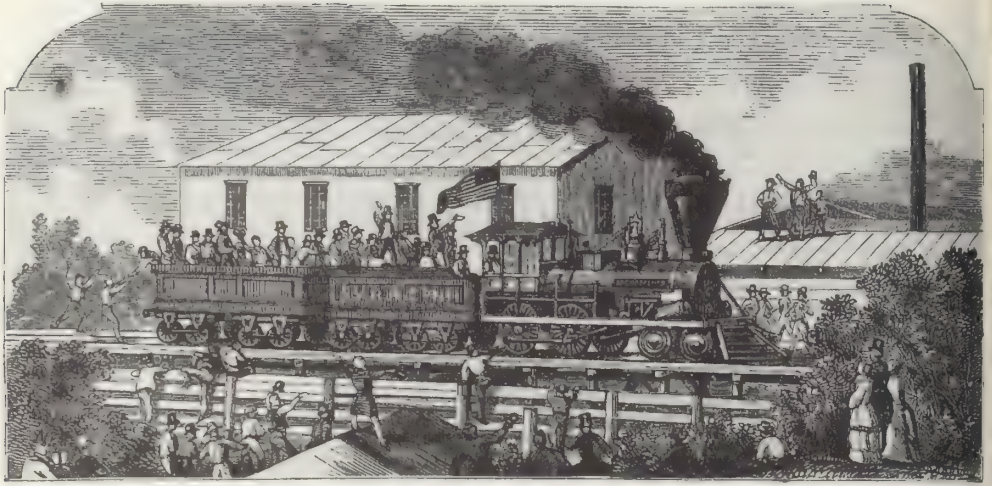
Officers of Wells, Fargo & Co. stand before the firm's first office, at 124 Montgomery Street, San Francisco, which in July 1852 opened its doors for business. Although the pioneer banking house has evolved enormously since it instituted an express line of coaches from San Francisco to Sacramento and Marysville, it clings to the imagery of its early days and maintains its corporate headquarters on virtually the site of this daguerreotype. *Courtesy Wells Fargo Bank.*

he dominant presence on the Comstock Lode. The bank financed not only the major mining ventures there, but provided capital for new railroads, steamship lines, water companies, hotels, and a wide range of service industries, even including emeteries.¹³ Few examples better illustrated the multiplier effect of the Gold Rush than the California banks that spawned a large number of new enterprises that built an intricate economic structure in the state.

In that structure, transportation played a dominant role, and the Gold Rush did much to underscore its importance. No other event so dramatized California's geographical isolation. From the beginning, the Argonauts scrambling to reach the gold fields encountered arduous difficulties. Whether they came by ship around the Horn, or sailed to Central America and then made their way across the disease-ridden Isthmus of Panama, or whether they came by land across the prairies in covered wagons, the journey was an ordeal. Those who survived the trek were especially eager to link California more closely to the rest of the nation, as were business people in the East. In the minds of most Californians, and many Americans, transportation held the key to a blossoming of the state's economy.¹⁴

Between 1848 and 1862 Californians experimented with various ways to end their isolation. They tried wagon trains over the Sierra and coastal steamers along the Pacific Coast, and petitioned Congress to appropriate moneys for a transcontinental highway from Missouri to the West Coast. Seventy-five thousand people signed his petition, fully one-half of the state's population. Yielding to such pressure, Congress in 1856 appropriated \$500,000 for a road to stretch from Missouri to Carson City, Nevada. Work was completed in September 1858 and almost immediately John Butterfield secured a federal contract for carrying the mails. He also promised passengers that he would deliver them to western destinations in twenty-five days or less. But neither the stage line, nor the Pony Express, nor the transcontinental telegraph lessened the desire for a railroad in the minds of most Americans.¹⁵

Support for the building of a transcontinental railroad gathered additional momentum with the outbreak of the Civil War, which underscored California's isolation. In California the project was most ardently promoted by Theodore Judah, a young engineer who had come from Connecticut in 1854 to work on the Sacramento Valley Railroad. Unable to raise the capital needed for the enterprise in San Francisco, he made the rounds of wealthy individuals in Sacramento. In 1860 he approached Collis P. Huntington and his hardware store partner Mark Hopkins, as well as other successful merchants such as Leland Stanford and Charles Crocker. Each agreed to provide about \$20,000 for experimental surveys of routes across the Sierra. In June of 1861 the five men incorporated the Central Pacific Railroad. Such a vast undertaking could not be accomplished solely by private enterprise, however, and a few months later Judah and Huntington journeyed to Washington, D.C., to lobby for federal aid. Within a year, the wartime Congress, in part responding to Ju-



A jubilant crowd hurrahs the passage of the Sacramento Valley Railroad's locomotive in a spirited wood engraving titled "First Railroad Ride in California," which appeared in the *Sacramento Pictorial Union* in 1856. Completed in February of that year, the road ran from Sacramento to Folsom, a grand distance of twenty-two miles, and reduced travel between the great river port and the mines by a full day. The era of railroading had dawned in California. *California Historical Society, FN-10954.*

dah and Huntington's political pressure, enacted the Pacific Railroad Act of 1862, which granted lands and loans to the company and the Union Pacific Railroad so that the work could begin. Although the transcontinental railway was not completed until 1869, after 1862 the end of California's geographical isolation was in sight.¹⁶ The Gold Rush had hastened removal of yet another obstacle to California's dramatic economic growth.

The population surge prompted by the gold discoveries also stimulated the building of a canal across the Isthmus of Panama. Between 1848 and 1869 tens of thousands of people headed for California across that once-remote area. The sudden influx brought new economic opportunities for some of the region's inhabitants. It also fostered a considerable increase in prices for many goods, benefiting some and injuring others. This influx of tourists prompted a group of American investors to build the Panama Railroad across the isthmus. Although it was only 47.5 miles long, the difficult terrain slowed construction, and it was not until 1855 that the line became operational.¹⁷ But the influence of the Gold Rush on transportation development did not end with the Panama Railroad. The project fixed the dream of a trans-isthmian canal firmly in the minds of many Americans of that generation. The dream persisted so vigorously that the building of the Panama Canal between 1880 and 1914 was in a very real sense a consequence of the California Gold Rush of 1849.¹⁸

From the very beginning, the Gold Rush had worldwide ramifications. It affected the economies not only of the United States, but of Central and South America, of Europe, and of the Far East. In the Western Hemisphere, Chile proved a prime example of the influence of events in California on world trade. Before 1848, Chilean farmers had found few market outlets for their products. But the Gold Rush quickly afforded them new opportunities as California emerged as a major market. Chileans shipped their wheat and flour, all kinds of fruits, and large quantities of beef at very profitable prices. Even Mexico, which had just emerged from a humiliating war with its northern neighbor, gained some trading advantages from the gold discoveries. In 1849 more than nine thousand Americans passed through northern Mexico on their way to California, purchasing supplies and stimulating an increase in price levels. At the same time, thousands of Mexicans also rushed north to the California gold mines. But the discrimination they encountered there was increasingly discouraging, and by 1854 the flow of Mexican immigrants lessened.¹⁹

The influence of the Gold Rush on European economies varied. Among those that were profoundly touched was Norway, whose economy was heavily dependent on shipping and trade and commerce. Norwegian merchants and shipowners looked on the newly emerging economic opportunities on the Pacific Coast with a lively fascination. Already in the 1850s the Norwegians were actively discussing the potentials of a canal across the isthmus. At the same time, Norwegian iron manufacturers were hopefully watching California as a potential big market for rails and railroad equipment, a market they expected to develop quickly. So intense was Norwegian interest in the California Gold Rush that many major newspapers prominently featured letters from Scandinavian miners in their pages.²⁰

Elsewhere on the European continent, the Gold Rush was also significant. For thousands of young Frenchmen undergoing the throes of the Revolutions of 1848, California beckoned as a source of new job and investment opportunities. They organized at least eighty-three companies in 1850, not only for gold mining, but also for investments in real estate, farming, and service industries. After 1852, French interest ebbed as Louis Napoleon established political stability in France.²¹ In Germany the Gold Rush also attracted considerable interest. Of the one million Germans who came to the United States during the 1850s, at least 30,000 settled in California, many as farmers or in the grocery business. By 1860 at least 14 percent of California's population was German. This heavy emigration caused labor shortages in the German states during the 1850s, although it eased population pressures in succeeding years. The Gold Rush also affected the Sardinian and Italian states, where increased price levels brought about by gold production created new capital available for building of railroads and telegraph lines.²²

Great Britain, perhaps, was most directly touched by the Gold Rush. Of the 500,000 British immigrants who came to the United States in the 1850s, at least

50,000, many of them skilled Cornish, Welsh, and Irish miners, settled in California. But the economic effects on the mother country were more varied than those experienced elsewhere in Europe. As a manufacturing nation, Great Britain depended on imports of food, and needed specie to pay those nations that could not afford to buy its manufactured products. Before 1848 an increasing shortage of gold had hampered British trade. But the new gold coming from the California mines relieved the specie shortage. As annual production of the metal reached \$131 million annually between 1850 and 1855, the amount of gold in the world's money markets increased. That raised prices everywhere. And as the cost of goods also rose in California, the demand for British manufactured goods increased as well. By 1856, British exports to California exceeded \$2 million annually. As California gold contributed significantly to the worldwide increase in prices, the British economy profited enormously with booming exports. At the same time this increased demand for British goods benefited many workers, whose wages rose faster than prices.²³

Nations in the Pacific area were also sensitive to the California gold discoveries. The Gold Rush created a critical labor shortage in Hawaii, where a sizable number of sugar plantation workers migrated to the California gold fields. That also brought a marked increase in the prices of consumer goods, especially foodstuffs. In part this was also due to the great increase of agricultural exports to California, which offered very profitable new markets. Hawaiian trade with the more distant Atlantic seaboard declined, as the increasingly multifaceted contact with the Pacific Coast increased. The exodus of workers from sugar plantations between 1848 and 1853 was so great that employers began to import Chinese immigrants to fill the gap, thereby forever altering the ethno-cultural structure of the islands.²⁴

The Gold Rush left ripples in China as well. Between 1848 and 1852, thirty-five thousand Chinese left for California; they constituted at least 10 percent of the population during the 1850s. California gold discoveries coincided with the Taiping Rebellion in China, a violent civil war that led to much plunder and famine, and created thousands of refugees. Eager to emigrate, many peasants from Kwangtung (Guangdong) province heard about California from traders there. Once in the United States, in addition to engaging in mining, they performed a variety of services, including laundry, food production and preparation, and construction. In addition, they were quietly involved in a variety of businesses. These included the importation of ready-made clothing from China, and even prefabricated houses. From the beginning of statehood, Californians initiated commercial contacts with their Chinese neighbors, even if they did not treat them as equals during the nineteenth century.²⁵

The Gold Rush and the resulting increase of gold in circulation contributed to higher price levels throughout the world. In the decade before 1848, prices had declined in developed nations. The tight money policies of the Bank of England and

also the Bank of France had contributed to this decline and led to a shortage of specie. California's gold production changed that situation and precipitated the rise in wholesale and commodity prices. The effects in the United States were also notable. No longer did the nation have to depend mainly on capital brought by immigrants, or produced by imports. Instead, the coinage of gold increased the amount of money in circulation and produced a favorable trade balance for the United States.²⁶

Indeed, throughout the second half of the nineteenth century, rising and falling world prices were closely related to gold production in California, and also in South Africa and Australia, where the California experience gave an impetus to the search for new mines. Between 1848 and 1870 increasing gold production raised price levels, but as the output slackened thereafter, the trend was reversed. Prices rose again from 1890 to 1896, boosted by new gold discoveries in Alaska and South Africa. Great Britain profited most from the increase of gold stocks because both the United States and South Africa exported their bullion to buy British goods. As E. Victor Morgan, a prominent British economist, noted in the twentieth century, "The most important single factor in the monetary history of the nineteenth century is the great increase in gold output, following the discovery of the mines of California and Australia."²⁷

The Gold Rush had an important effect on the investment policies of European nations, particularly Great Britain. In the first decade after the discovery of gold, British stock companies invested at least \$10 million in mining companies in California—most of which were not very successful. That experience led to a lull until 1870, when British investors took another fling in California mines. Between 1870 and 1873, twenty-seven companies poured at least £4 million into mining operations in the state, and more than twice as much in the Comstock Lode in Nevada. High hopes were disappointed, but the experience did much to familiarize British capitalists with California. Hope springs eternal, and between 1873 and the end of the century, British investors broadened their interests. Some, like the California Redwood Company, sent their monies to purchase forests in northern California. Others, like the California Orange and Vineyard Company, entered the southern part of the state and contributed to the economic boom of the late 1880s there. Others bought land and established ranches, as in Duarte. The Glasgow California Land Company reclaimed swamp lands in the San Joaquin Delta. Many of these ventures failed; one scholar estimated losses between 1880 and 1893 to be as high as £150,000. But the infusion of so much foreign capital did much to stimulate California's economy. It facilitated rapid expansion and certainly accelerated the building of railroads.²⁸ And of course the large volume of gold exports from California contributed mightily to create a favorable trade balance for the United States. Between 1850 and 1900 California's gold production constituted fully 59 percent of total U.S. gold production, totaling about \$1.4 billion (or at least \$25 billion in 1990 dollars).²⁹



The solid stone and brick edifices lining Montgomery Street in the mid-1850s testify to the transforming powers of gold. Where but a half-dozen or so years earlier a scattering village of adobes and modest frame buildings had fronted Yerba Buena Cove, now stood a substantial cosmopolitan city of hotels, shops, theaters, and banking houses. The cost of John Parrott's elegant Granite Block, foreground, built in 1852 of stone quarried in China, possibly exceeded the entire value of the frontier settlement that had earlier been galvanized by the cry "Gold! Gold! Gold on the American River!" *Courtesy Bancroft Library.*

In many ways, the California Gold Rush precipitated a veritable economic revolution in the state, the nation, and the world. Production of precious metals affected price levels, labor, wages, capital investment, the expansion of business, finance, agriculture, service industries, and transportation. True, the California experience was not entirely unique. Precious metals had influenced the course of civilizations for thousands of years before 1848. When Emile Le Vasseur, the great French economist, in 1858 traced the historical relationship between the value of gold and the value of commodities, he identified fourteen major revolutions in world history, of which the California Gold Rush was the last in his lifetime.³⁰ Many of his views were shared by his contemporary, Karl Marx, who just one year later declared that his observations on capitalism were made in direct response to the gold discoveries in California. As Marx wrote in 1859, "The enormous material on the history of polit-

ical economy which is accumulated in the British Museum; the favourable view which London offers for the observation of bourgeois society; finally, the new stage of development upon which the latter seems to have entered with the discovery of gold in California and Australia led me to the decision to resume my studies from the very beginning and work up critically the new material." Those studies were soon to culminate in *Das Kapital*, a revolutionary book stimulated by the gold discoveries of the 1850s.³¹

The passage of time did not dim assessments of contemporaries as to the revolutionary economic impact of the California Gold Rush. The eminent British economist John Maynard Keynes wrote in 1930 that he viewed the rise and fall of civilizations in relation to precious metals. He surmised, for example, that Sumerian civilization could be explained by the gold of Arabia, the greatness of Athens by the gold of Laurium, and the stagnation of western Europe during the Middle Ages by the scarcity of precious metals. Historians agreed. Fernand Braudel, the French student of world civilizations, exclaimed that "the chapters of world history . . . follow the rhythms imposed by the legendary metals."³²

In the final analysis, it might be said that the economic significance of the Gold Rush can also be understood in a psychological and philosophical context. As the French philosopher Michel Foucault once wrote, "the signs of exchange, because they satisfy desire, are sustained by the dark, dangerous and accursed glitter of metal. An unequivocal glitter, for it reproduces in the depths of the earth that other glitter that sings at the far end of the night; it resides there like an inverted promise of happiness, and because metal resembles the stars, the knowledge of all these perilous treasures is at the same time knowledge of the world."³³ Thus, the economic impact of the Gold Rush is rooted as much in emotions as in rational behavior. It touched a deep-seated nerve in the human psyche. Consequently, it had a profound influence not only on contemporaries, but on later generations, and is bound to exercise a continuing fascination in the future.

NOTES

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2. Inexplicably, a definitive history of the California economy or business remains to be written. More than one hundred years ago Hubert Howe Bancroft compiled much useful de-

tail. Material in this paragraph is taken from Hubert Howe Bancroft, *History of California*, vol. 7 (San Francisco: The History Company, 1890), 94-97. Older useful compendia are John S. Hittell, *The Resources of California* (San Francisco: A. Roman, 1863), and Robert G. Cleland, *The Cattle on a Thousand Hills* (San Marino: Huntington Library, 1941), 157-83.

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4. Bancroft, *California*, vol. 7, 84.

5. Ibid., 79-80, 315; see also Edwin Corle, *John Studebaker, An American Dream* (New York: E. P. Dutton, 1948).

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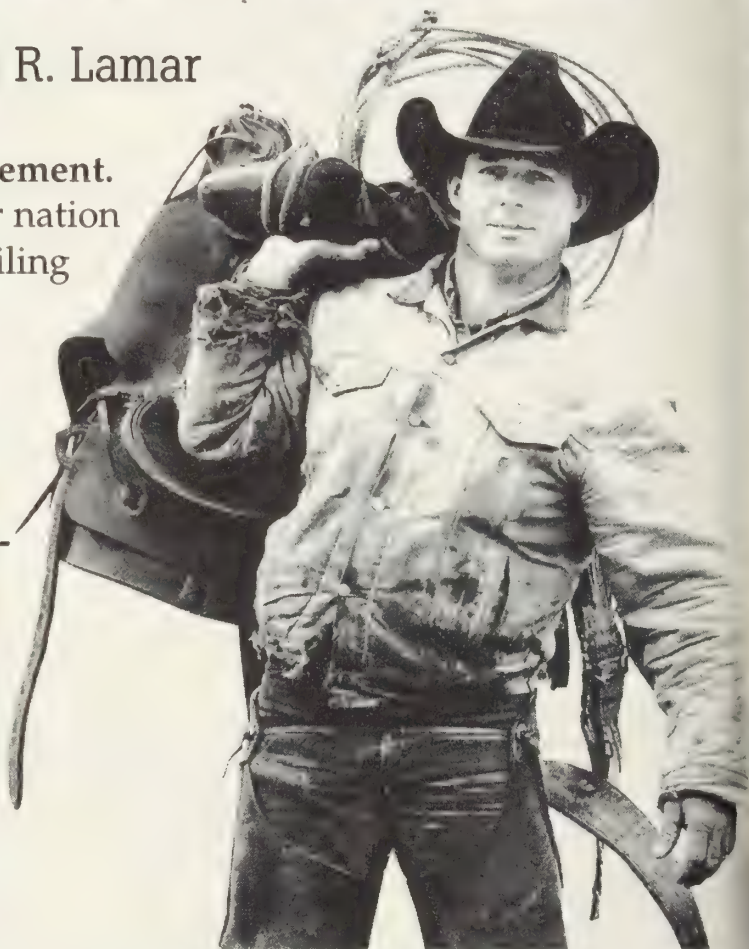
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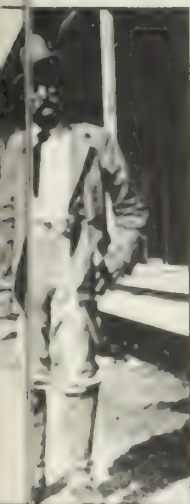
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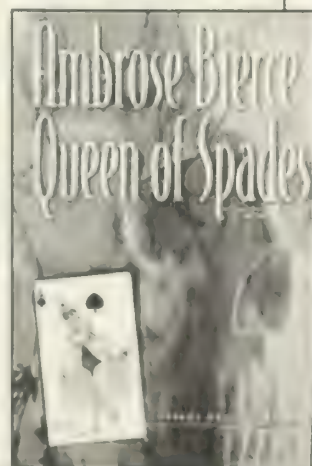
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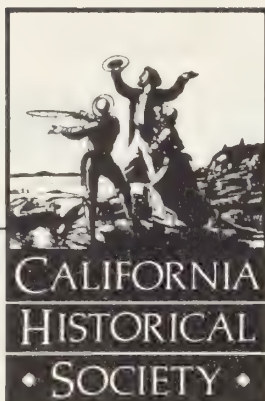
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